

POPULATION EXPLOSION AND POVERTY
AMONGST AFRICANS IN SOUTH AFRICA

by

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of the requirements for the
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PREFACE

The current rate of world population growth is one of today's major problems and constitutes a threat to the future of all mankind. Over three and a half billion people live on our small, in places overcrowded planet, and if the present rate of growth continues this figure will double within the next thirty to forty years. This phenomenon has been described as the "population explosion". Why does it constitute a threat? Growth in itself is not necessarily bad; it has been the basis for much human progress in the past. What concerns us is that a large proportion of this growth is concentrated in certain areas of the world and can be linked to the appalling conditions of deprivation endured by millions of men, women and children in these areas. Though the impact of the population explosion is presently restricted to only certain segments of mankind, there is every indication that future consequences may affect all of us.

My main focus will be amongst the African population in South Africa. The principal purpose of my thesis is to offer an organised approach to a complex and very controversial subject on the fertility of Africans in South Africa based on research conducted within the Eastern and Western Cape regions.

The thesis is divided into five parts. Part A discusses the aims and objectives of the study. It also discusses the methodology of the research and background on area study, and examines the South African population growth. Part B, details theories of population growth. It also reviews literature on the determinants of population growth. In Part C, the research results are tabled and tested for statistical significance. In Part D, the results are compared and discussed with other similar literature findings. Part E, draws conclusions from the findings and recommends possible strategies for action against African population growth in South Africa.

PART A: STUDY AIMS, METHODOLOGY AND BACKGROUND

CHAPTER 1

INTRODUCTION-STUDY AIM AND HYPOTHESES

The aim of the study is to look at the fertility patterns amongst Africans in South Africa. The President's Council's Science Committee on demographic trends in South Africa has proposed a stabilization of the population at 80 million by the year 2010 (RSA, 1983b). Mr. Sarel Hayward, warned in Parliament that, unless there was a drop in the African population growth, "we shall be heading for a catastrophe in this country..." (SAIRR, 1985:715). Responding to this statement, Dr. Nthato Motlana, chairman of the Soweto Civic Association said, if the government improved socio-economic conditions amongst Africans, population growth would automatically drop (The Star, 23/5/1985). It is on the strength of such statements and other similar related warnings that the object of the study emerged.

It is the author's objective to examine the correlation between fertility and income, urbanisation and education. The World Bank, Human Sciences Research Council (HSRC), and the United Nations, are but some of the organisations that have studied the subject of fertility. They have found that higher income leads to more spending on children's education and substitutes for children's economic contributions. It gives more exposure to consumer goods,

reducing the propensity of couples to spend disposable income on children. It contributes to improvement in nutrition and health care and lowers infant and child mortality. It provides better ability to afford contraception, and therefore fewer children. (World Bank, 1984b; United Nations, 1980b; Lotter & van Tonder, 1976)

My first hypothesis is that people with higher income have fewer children. On the other hand, low income earners tend to view children as an investment (taking into consideration the question of lobola, extended families, old age security, etc.).

My second hypothesis states that people with a higher level of education have fewer children than the less educated ones. Studies have found that education provides the individual with 1) literacy (and access to information and the broader perspective it makes possible); 2) socialisation or enculturation into different attitudes and behaviour patterns; 3) specific skills that often provide occupational advantages; and, 4) a useful certificate of status. These conditions contribute to lower fertility. (Cochrane, 1979; United Nations, 1980b)

My third hypothesis (linked to the other hypotheses) is that people who have been exposed to urban life tend to have fewer children. According to Stolnitz (1983), urbanites have access to better education, a wider spectrum of work opportunities, and a better

public health environment. They have more avenues for self-improvement and social mobility. Lotter and van Tonder (1976) found that, in the rural areas, greater value is placed on children as potential workers and this is undoubtedly a partial explanation for higher fertility in these areas.

Although this study has been undertaken by other well-acknowledged Institutes like for example, the HSRC in South Africa, the focus and approach of this thesis is slightly different. It is based on these three hypotheses mentioned above. The HSRC study (on these three hypotheses) was last undertaken in 1974. Much has happened between then and 1985 in the social, economic and political spheres. This therefore aroused the author's interest in the subject.

These hypotheses were tested amongst Africans in the Cape Province. The following chapter will explain the methodology and background of the areas in which research was conducted.

CHAPTER 2

METHODOLOGY AND BACKGROUND ON AREA STUDY

The major research was conducted in Guguletu and the Amatola Basin. This chapter describes the background of these two areas and the method used to select and analyse data.

2.1 METHODOLOGY

2.1.1 SAMPLE FRAME

A pilot study was conducted in October 1984. The rural male sample was represented by the migrant workers who lived at the Langa hostels in a township of Cape Town. Females in Crossroads represented the rural female sample. Only the women who had been brought up in the rural areas were interviewed, and the majority was from Transkei. For the urban sample, Guguletu people were interviewed.

Crossroads is a large shanty-town near Cape Town airport, housing 20,000 people. The inhabitants originally come from the Ciskei and Transkei, most being legal contract workers with an average of 18 years in the urban area, but some being long term illegal workers in Cape Town. In the main, the men are migrants who have brought their wives and families to Cape Town. A sizable minority of the heads of households are women. (Roberts & Rip, 1984)

A simple random sampling technique was used to select samples in each of these three areas (Crossroads, Guguletu and Langa hostels). The respondents in the pilot study came from separate households and were therefore unrelated. With all respondents, they were engaging in sexual activities and/or using contraceptives.

In Crossroads, most women (representing the rural sample) were interviewed in their shacks. Since these shacks are not arranged systematically, the interviewers had to split into groups that went to different spots in Crossroads to obtain a representative sample.

At the langa hostels, men (representing the rural sample) live in crowded rooms. It was difficult to interview them there since privacy was an essential element in the completion of questionnaires. The interviews were therefore conducted at the "corners" of the hostel passages. To obtain the sample, the interviewers split into groups that went to different floors in the hostels. Most of the interviews were conducted in the evening when most men were there.

In Guguletu we interviewed both men and women, representing the urban sample. As in the major survey, we waited in places like at the Nyanga and Heideveld stations.

The major survey was conducted within the period of May-October 1985. The rural sample was obtained from the Amatola Basin, 30 kilometers away from Alice (where the University of Fort Hare is situated). This is a rural area half way between Keiskammahoek and Alice in the Republic of Ciskei (see p.17). For the urban sample the research was done in Guguletu, a township which is about 15 kilometers away from the centre of the city of Cape Town.

2.1.2 SAMPLE SIZE AND DISTRIBUTION

The sample was distributed as follows:-

TABLE 1

DISTRIBUTION OF RESPONDENTS BY AREA

	RURAL	URBAN
MALES	150	150
FEMALES	150	150
	300	300

The different areas of origin were classified into five types. First, areas near the big cities which are not part of a homeland, for example, Guguletu. Secondly, areas in towns that are not in a homeland, for example, Beaufort West. Third, countrysides outside a

homeland, for example, white owned farms. Fourth, towns in a homeland for example, Mdantsane. And lastly, countrysides in a homeland, for example, the Amatola Basin. The different classifications of these areas is shown in Table 2:-

TABLE 2

SAMPLE DISTRIBUTION BY AREA OF UPBRINGING UP TO THE AGE OF 12

	CITY OUTSIDE HOMELAND	TOWN	COUNTRYSIDE OUTSIDE HOMELAND	TOWN IN HOMELAND	COUNTRYSIDE IN HOMELAND	TOTAL NUMBER OF RESPONDENTS
GUGULETU MALES	103(69%)	9 (6%)	8 (5%)	10(7%)	20 (13%)	150(100%)
AMATOLA MALES	5(3%)	5 (3%)	2 (1%)	4(3%)	134 (90%)	150(100%)
GUGULETU FEMALES	110(73%)	9 (6%)	2 (1%)	7(5%)	22 (15%)	150(100%)
AMATOLA FEMALES	1 (1%)	2 (1%)	2 (1%)	1(1%)	144(96%)	150(100%)

Most sampled urban respondents had been brought up, until the age of twelve, in Guguletu, (69 percent of the total sampled urban men, and 73 percent urban women). Of their remaining percentages, most had come from the rural areas of Transkei to seek work in Cape Town.

The rural sample was mostly comprised of people who grew up in the Amatola Basin. 90 percent of the sample rural men and 96 percent sample rural women had been brought up in the Amatola Basin.

At times the sample was too small to render significant findings. In such instances the author relied much upon research from other similar studies.

2.1.3 QUESTIONNAIRE DEVELOPMENT

For the major survey, certain questions, used in the pilot study, had to be omitted, corrected, rephrased, and amplified. The questionnaire of the World Fertility Survey (WFS) was used to gather data. The WFS is an international research project undertaken by the International Statistical Institute (ISI) in collaboration with the United Nations and the International Union for the Scientific Study of Population (IUSSP). The main objective of the WFS programme is to assist developing countries in carrying out well-planned and scientifically designed sample surveys with a view to providing high-quality data on fertility levels, trends and differentials.

Questionnaires were used to determine :-

- 1) age
- 2) educational level
- 3) literacy
- 4) income
- 5) place of residence until the age of 12.

For females alone, the following information was gathered:-

- 1) birth and contraceptive history
- 2) childbearing and childrearing.

For males alone the following was determined:-

- 1) attitudes towards the use of contraception
- 2) person responsible for the use of contraceptives
- 3) number of female partners
- 4) knowledge of the kind of contraceptive used by the partner.

Two sets of questionnaires for women were used (see appendix). Questionnaire F(1) recorded her personal history, history of births and contraceptive use, income, and economic status. Questionnaire F(2) asked about each of her children and the methods she used in spacing them. We also gathered information whether the children's fathers were maintaining them.

For males, three sets of questionnaires (see appendix) were used. Like those for the females, the questionnaires were of different colours to ensure speedy recording. Questionnaire M(1) analysed his personal history, reproductive history (i.e. how he perceives contraceptives and the number of children he wanted), income, and his economic status. Questionnaire M(2) asked about each of his partners' contraceptive history. This was to determine if he was aware of the methods they used. Questionnaire M(3) asked about the

birth history of his children and the marital status of their mothers. They were also asked whether they maintained these children or not.

Open-ended questions were used on specific subjects (for example, male attitudes towards contraception) to obtain more insight on the subject. The coding system was used to help in the processing of questionnaires. It also saved the researchers' time, and especially for those respondents who seemed too "busy" to answer questions.

The research did not cover the views of the nurses towards certain aspects of their work on family planning. The author in the thesis discusses those that were researched by HSRC because, as far as can be established, no similar study has been undertaken in South Africa.

These are nurses representative of all four population groups. The study was restricted to the White areas of South Africa. It excluded nurses in the Black homelands. (For sample methodology refer to Ferreira & Mostert, 1984:10-12).

2.1.4 RESPONSE RATE

All male rural respondents, both in the major and in the pilot survey, (i.e. from the Amatola Basin and those men who were temporarily residing at the Langa hostels) were reluctant to give us information. The Langa men, at first, thought we had come to raid those without legal rights at the hostels. They asked many questions to ensure their safety with us. We had to convince them that we had not come for such a purpose but to conduct research on why they want children. They asked us questions like, "Are you married?", "Why do you have to ask me this..?". In the African traditional society, you cannot ask an elderly man personal questions like, "How many current partners do you have?", or "Is she pregnant?", when you are younger than the man- worse if you are an unmarried woman. It is regarded as an insult and lack of respect to the elderly people. Amongst Xhosa- speaking people, for example, a "khwenkwe" (meaning an uncircumcised man) cannot ask an "indoda" (meaning a circumcised man) about his personal relationships. In order to retrieve this information we pretended to be married. Some interviewers went to the extent of wearing a ring as proof to these men.

*Illegal
Misrepresentation*

With the Crossroads women, we had to take a stand in recording their responses to our questions. The men were often at home when we were interviewing their wives. They were jealous and did not want to leave us to interview their wives privately. When we asked the women about their ideal numbers of children, men

intervened and did not agree to their wives'"small" numbers. In one house, the woman wanted 4 children but the husband got angry and disagreed to say he wanted 10! In such instances we only recorded 4 as the response from the woman.

All respondents responded well when interviewed privately. It did not seem to matter whether they were interviewed by males or females. It was easier for us to obtain the information we wanted when we did not ask the respondents their names.

Men had many partners and they seemed to be 'proud' of that. It seemed they acquired some status from having more than one partner. In the rural areas polygamy is still common. Some of the migrants have a legal wife in the city and a traditional wife at home (i.e. by customary union), whilst in the urban areas the law does not recognise the second wife nor register her to have lawful rights to the man's property. Because the law does not permit polygamy, some of these women in the urban areas, who would have been 'wives', were girlfriends. Most of the rural respondents were married customarily and this we recognised and recorded as formal marriage (like the civil law marriage), commonly found in the townships.

The respondents talked freely because all the interviewers (including the author) had Zulu accents, meaning that we were foreign to them. This to them meant that we did not know them and we would not talk about their personal details to others. Although

we had some difficulties in expressing some of the technical words in Xhosa, we did manage to express what we meant to these people without distorting the meaning of our questions. We could also understand all that they said to us.

2.1.5 QUALITY OF RESPONSE

The author was helped by researchers who were in the research field, most of whom were undertaking their undergraduate studies whilst one or two had a bachelor's degree. They assisted in both the pilot and the major surveys.

Representative numbers of women of each age group from both areas were interviewed. These were mainly women less than 44 years of age, considered to be fertile.

The sample was chosen as follows: for Guguletu people, we waited in places like at the Nyanga and Heideveld stations, where we interviewed women and men who were already engaging in sexual activities and/or using contraceptives. A 14 year old girl in Guguletu was also interviewed because she was on contraceptives, which implied that she regarded herself fertile. Part of the sample was collected in different streets, and a few, in houses.

At the Amatola Basin we interviewed pupils from the only local high school in the age group ranges of 15-30 years. We also interviewed other people who were not attending school, after their usual meeting with the headman or chief of the area (one of the means for residents to be in contact with the outside world). We were also given a chance to interview them during their pay days, i.e. at the pay points. In a few instances we visited them at their homes. At the homesteads there were mostly small children and elderly men and women who were no longer of reproductive ages. These were not interviewed. The author interviewed 50 percent of the total sample. The remaining percentage was interviewed by the assisting researchers.

Obtaining the exact figures on income was the most difficult part of the research. Most people (especially men) furnished us with an incorrect range of income. The income figures for the Amatola Basin respondents were also higher than they would have been had our period of research not coincided with the migrant workers' leave. They (migrants) earned more than those who were employed at the Amatola Basin. Again, of those who were working at the Amatola Basin, almost 99% (of them) were at the same single place of employment (where they were all doing similar work, picking up stones to build a grazing area). Their income figures were much more reliable than that of the Guguletu respondents. The Guguletu people were employed in different sectors, did different types of jobs and held different positions at work. To ensure reliability on the figures, the question of income was asked twice (at the beginning

and at the end of the income section). For those who furnished us with different income figures (for example, one or two male respondents at the Amatola Basin), the average was taken.

2.1.6 FIELDWORK

The political situation that prevailed in 1985, particularly in Cape Town, affected our progress. A spirit of insecurity amongst residents prevailed since no one trusted each other. The State of Emergency which had then been imposed in other townships and not at that time in Cape Town, was in actual fact being partially practised there. Later on, the presence of the members of (the) Inkatha, (a Kwazulu political organisation) in Guguletu, affected the research. Our Zulu accent made some people associate us with (the) Inkatha. Fortunately we had gone a long way with our research by then and most people knew about us and in this way we were 'safe'.

Before the Amatola Basin survey could be conducted, a visit was paid to the particular chief or headman in order to explain the purpose of the research to him and to obtain his co-operation. Since Amatola Basin is a small area, we became familiar with most respondent's faces as days went by.

The day-to-day supervision of the field work was carried out by the author who was responsible for assigning the workload to each interviewer. This ensured that the interviewers had actually visited the area. Mistakes made by interviewers were discussed with them (during the pilot study) so that these should not be repeated in the main survey.

Some people were convinced that we were social workers. They asked us questions as to where they might get maintenance since the children's fathers did not support them. We had to cope with this. However, the overall research response was good.

2.1.7 STATISTICAL ANALYSIS

Data was analysed by a competent programmer, using the BMDP (Biomedical Computer Programs) statistical software package. Tabulations were prepared following the tabulation plan based on the WFS Guidelines for country report no. 1. After feeding the data into the computer, they were checked and corrected for format and structural errors. Out-of-range errors and inconsistent responses were also corrected. The computer was used to locate errors, but not to make corrections.

The SAS software System was used to test the association of certain variables using the PROC FREQ program. The statistical analysis procedures in the SAS System range from simple descriptive statistics to complex multivariate techniques. PROC FREQ program is distinguished by its ability to compute chi-square tests and measures of association for two-way to n-way tables.

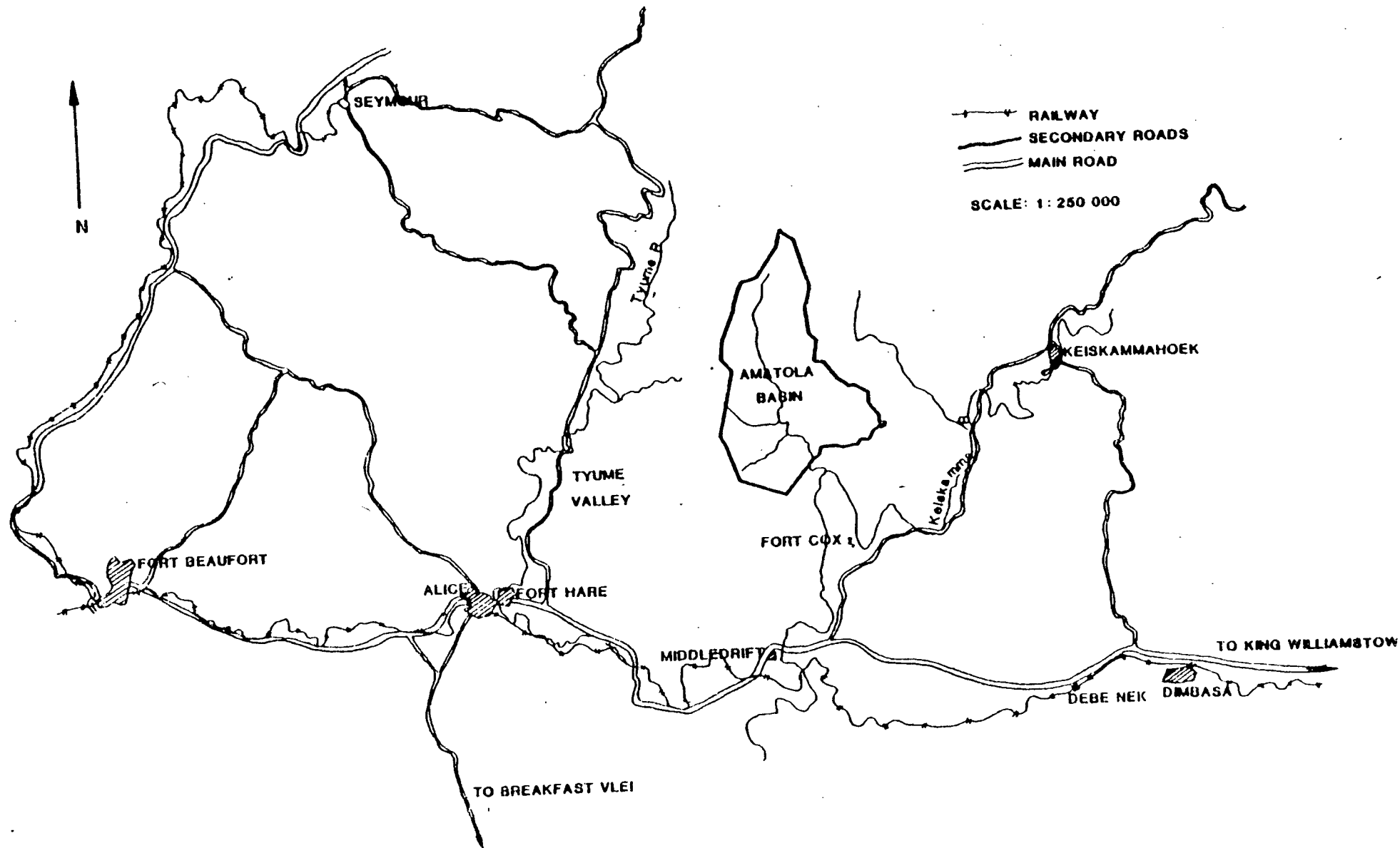
A methodological consideration regarding the nature of the data, is that information was not gathered for all regions in South Africa. The sample was not a representative one, and could be biased towards those in education or employment. To overcome the problem of possible sample 'selectivity', the results are compared with those from other similar studies (e.g. Lotter and van Tonder, 1976; World Bank Reports 1982-1985; United Nations 1980-1985; etc.).

2.2 BACKGROUND ON AREA STUDY

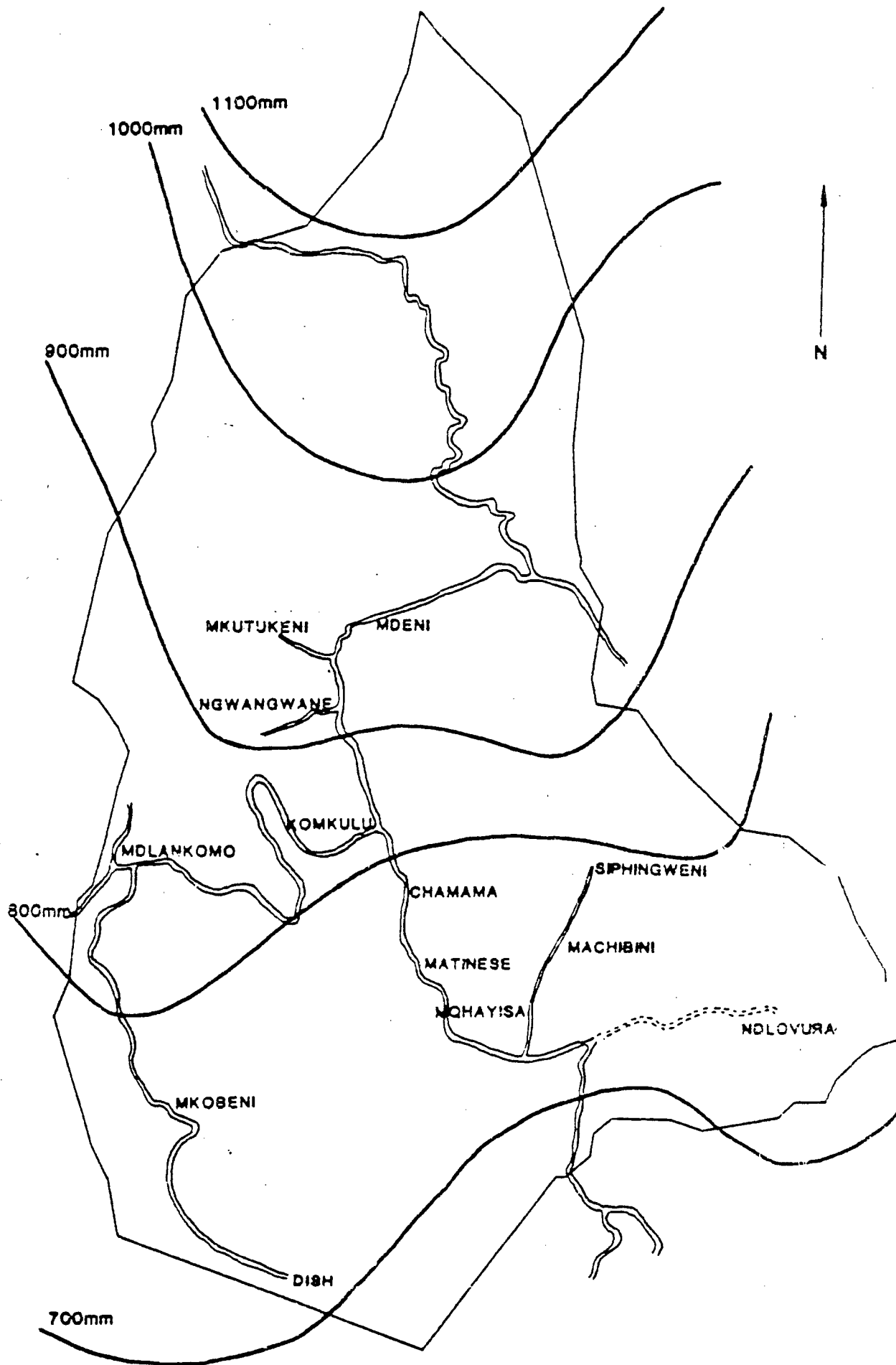
2.2.1 AMATOLA BASIN

According to the information that was compiled from the research done by ARDRI (Agricultural and Rural Development Research Institute) at the University of Fort Hare in 1979-1983, the 13 villages in the Amatola Basin vary in size from 40- 100 homesteads and are dense settlements within which all Amatola residents live. The largest village is Mqhayisa which consists of 99 households; the smallest is Chamama which has 42 households (Fincham, 1982b). Komkhulu, centrally placed within the Basin, is the hub of all the

Source: AMATOLA BASIN Interim Report 1979-1983 AFDRI, Fort Hare, 1985.



THE POSITION OF AMATOLA BASIN RELATIVE TO IT'S IMMEDIATE ENVIRONMENT



AMATOLA BASIN

SOURCE : AMATOLA BASIN Interim Report 1979-1983 ARDRI, Fort Hare, 1983

Basin activities. The three gravel roads within the Basin converge on it and what infrastructural development has occurred, tends to be in the village. The chief and his tribal authority, the one Basin high school, its main trading store ('Weiss'), the clinic and the residence of the agricultural extension officer are all located at Komkhulu.

Not all homesteads are occupied. In fact, one out of ten homesteads stands empty- at least for most of the year- since their owners and families live and work elsewhere. The total de facto population is almost 4 000. Within the eight hundred occupied homesteads, household members are usually related to one another by ties of blood and marriage. These households consider the Amatola Basin as their home, or at least their rural home.

The villages are small, and none offer wage or salaried employment on anything but a minimal basis. Agricultural activities do not meet the aspirations of most of the younger adults. The need to obtain an alternative source of cash income is therefore compelling. This need is met by the migration of most economically active Amatola Basin adults to towns and cities in South Africa. The links between these migrants and those who remain in the Basin are maintained by various means: the regular remittance of cash or material goods to their homesteads; visits 'home' and often, the return for schooling of children whose parents (or at least, fathers) effectively live in cities far from home. The absence of

males and inefficient land use results in low yields of maize and some vegetables (Ciskei Commission (Report), 1980). Farming is essentially a subsistence activity and invariably does not provide sufficient food for the household.

There are 3 main sources of cash income to Amatola Basin households: remittances sent by household members working elsewhere; pensions paid out to the elderly and the disabled; and cash-earning activities in the Basin itself. In the absence of sophisticated banking and credit facilities, there is little chance of other regular sources. Voluntary savings clubs, shebeens and burial societies do play some role in the cash flow within the Basin. Their overall role, however, is secondary and peripheral to the three primary sources.

Remittances fulfill a number of different functions for Amatola Basin households: attempts at maintaining and solidifying marriage ties between absent husband and wife with children; sons who wish to support their homes (and assure their inheritance); capital for investment in homesteads; stock and crop production; or cash upon which Amatola Basin residents of poorer households depend upon almost totally.

Not all who are employed and living outside the Basin remit, nor do those that do, necessarily remit regularly. It would seem that men are more likely to remit than women. This is because men are more

AGE

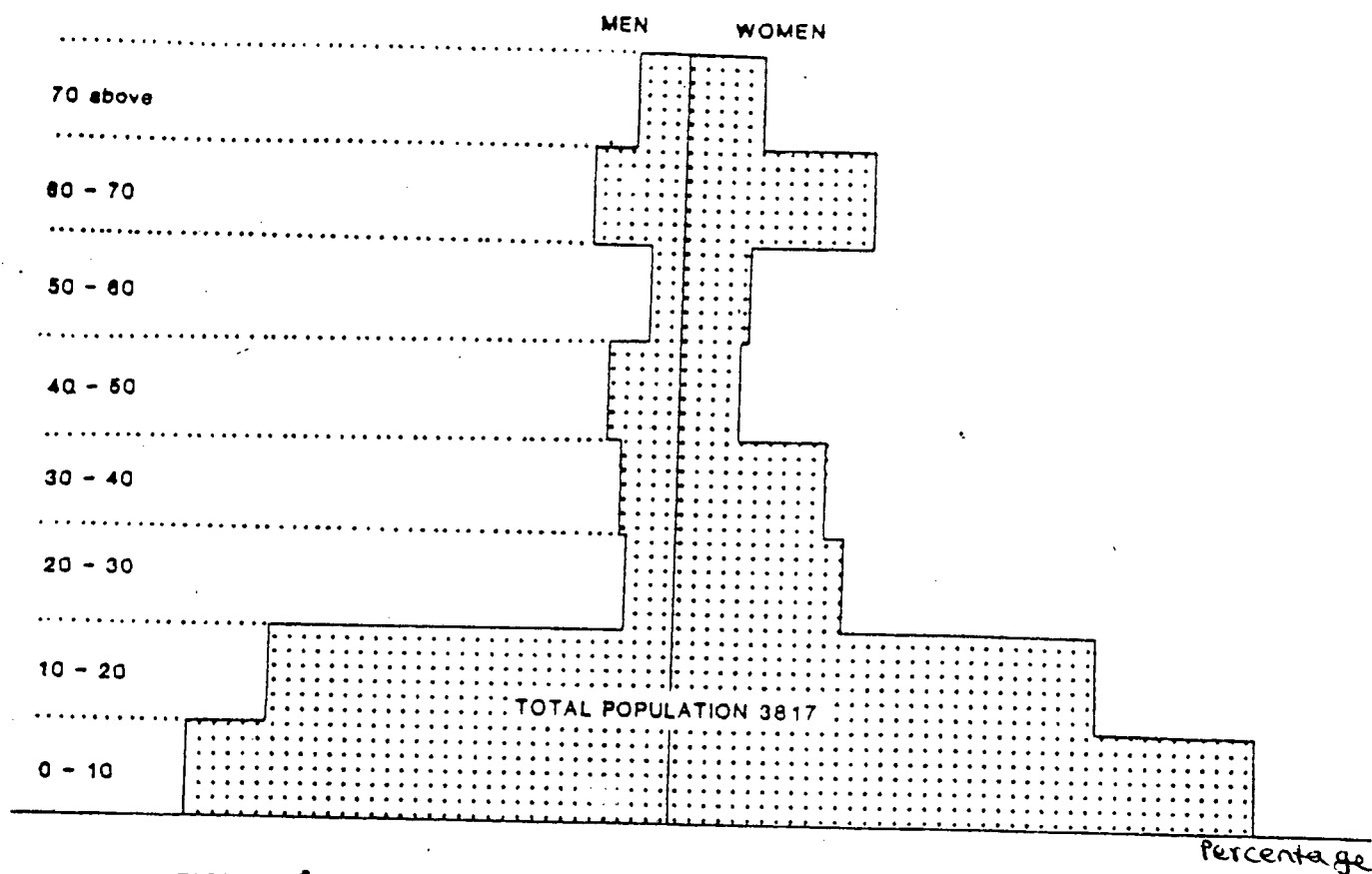


FIGURE 1: HOUSEHOLD MEMBERS LIVING IN AMATOLA BASIN

AGE

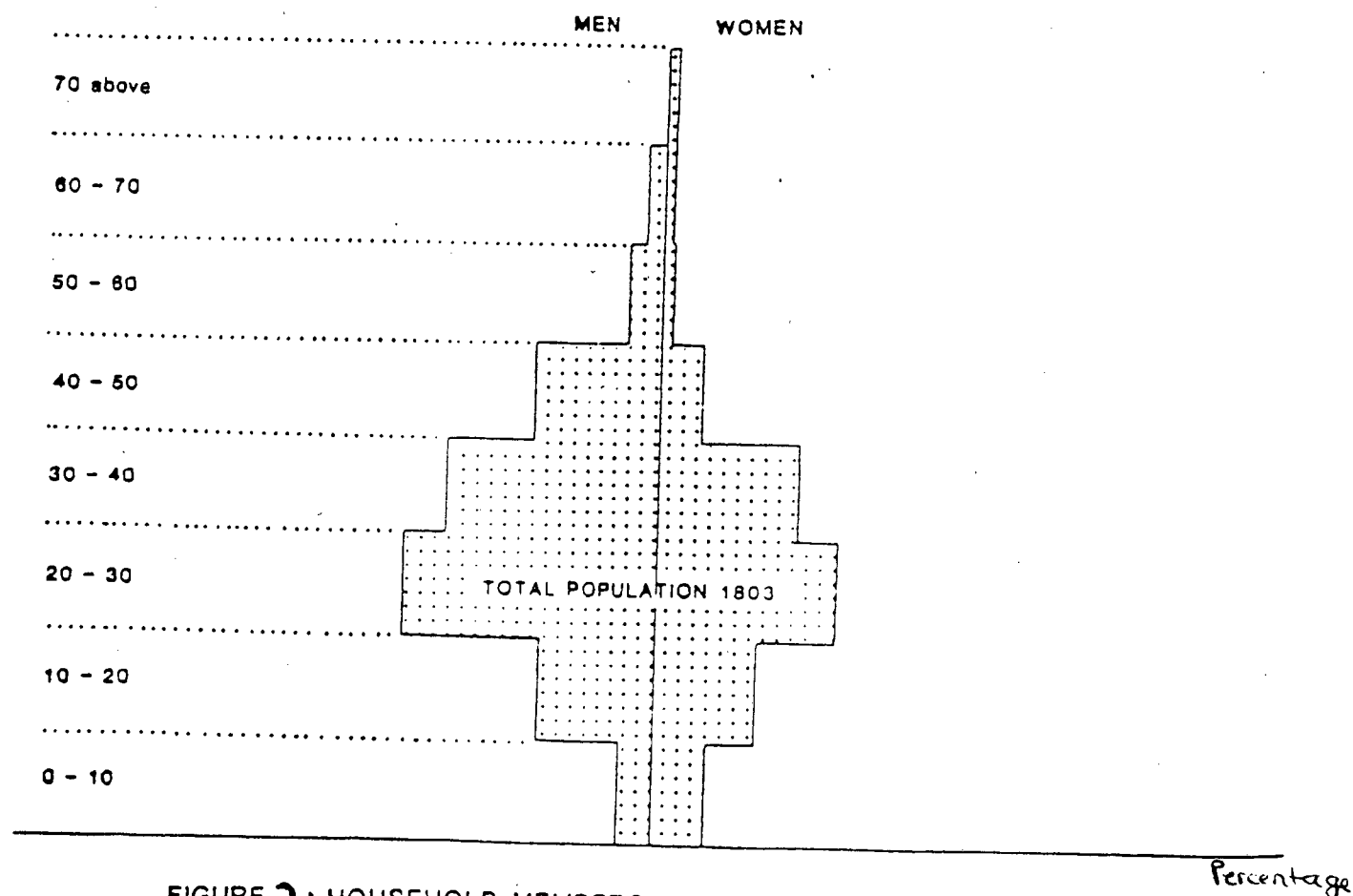


FIGURE 2: HOUSEHOLD MEMBERS LIVING OUTSIDE AMATOLA BASIN

SOURCE: AMATOLA BASIN; INTERIM REPORT 1979-1983, ARDRI, 1983.

likely to have spouses in the Basin, and younger men will probably have some expectations regarding inheritance of land and stock in the Basin. A little over half of those remitting do so regularly, usually on a monthly basis (Amatola Basin, Interim Report, 1983). Irregular remittance such as cash amounts brought home by a returning migrant are commonplace. However, this irregularity and unpredictability causes difficulties and hardship for Amatola residents, particularly for the poorer household. It also affects the ability to cultivate regularly.

Close on half the household in Amatola Basin depend on cash remittances for over half their monthly household expenditure and less than one in every three households receives no cash from remittances.

As is clear from the sex and age pyramid (in figure 1 and 2), adults between the ages of 20 and 60 are the most likely to be living and working outside the Basin. In fact, only 25% of men and 54% of women (of all inhabitants) in this age category are resident in the Basin (Amatola Basin, Interim Report, 1983). As a result, those who live in the Basin consist overwhelmingly of children and the aged, with a consequent tremendous responsibility being placed upon the relatively few adults, mostly females, between the ages of 20 and 50.

This tremendous demographic imbalance is reflected in the household structure found in the Basin: though two out of three heads of household are men, one third of these male heads is absent and therefore "... attempting to play a double role of head of household and cash-earning migrant" (Bekker et al., 1981a:16). Effectively, in almost all these cases, the migrant's wife resident in the Basin acts as head of the household with regard to Basin- orientated activities. In fact, more than half the effective heads of households in the Basin are women, 20% being wives of absent migrants, and the rest widows with a few women who are separated from their husbands (Amatola Basin, Interim Report, 1983).

Overcrowding is a problem in Amatola Basin. The average household has 6 residents living at home; if members of the household living outside the basin are included, then the household size averages 7,4 inhabitants (Fincham, 1982b).

Although the figures suggest overcrowded home conditions, Amatola Basin residents are fortunate not to have the added burden of resettlement camps within the Basin, as is the case in many other Ciskeian areas. There has been little influx of people into the Basin making for an isolated group of people who have a positive sense of community identity.

The Komkhulu clinic, provides ante-natal care, domiciliary visits and aids for minor ailments. If the clinic is unable to treat a serious case, that case, in theory, is referred to the Regional hospital, St. Matthews, which is situated just outside Keiskammahoek, a distance of about 30 kilometers from Komkhulu. A doctor from St. Matthews is supposed to make monthly visits to the Basin, but staff shortages prelude such a visit. Furthermore, the lack of vehicles and the high rate of vehicle failure means that the ambulance service to Amatola is poor. In bad weather hospital vehicles do not attempt the journey into the Basin, no matter how urgent the need of the Basin communities.

From the research that was conducted by the Institute of Social and Economic Research (Fincham, 1982b), the nutritional status of the children in Amatola Basin, five years and younger, was found satisfactory. There are indications that during periods of unfavorable climatic conditions (like drought), and associated shortfalls in basic subsistence foods, nutritional status may deteriorate.

2.2.2 GUGULETU

This is an African township, about 15 kilometers from Cape Town. Its total population is about 75 000. This figure includes 20 Whites, 1 260 Coloureds and 73 480 Africans (Patel, 1984). This means that 98% of the people dwelling there are Africans, 2%

Coloureds and a fraction of 0.003% are Whites. (The numbers for Coloureds, and especially Whites, were obtained on the day of the census- they do not necessarily represent the number of dwellers in the area).

An age profile of the Guguletu inhabitants was taken. Most respondent were still of productive age. This situation is shown in table 3:-

TABLE 3

AGE PROFILE OF THE GUGULETU INHABITANTS

	0-4	5-14	15-24	25-34	35-44	45-54	55-65+	All Ages
Percentages	10	20	23	18	11	9	9	100%

SOURCE: Patel E.: CAPE TOWN - A Summary and Analysis of Socio-Economic Trends for Local Areas and The 01 Economic Region(PART 2) Carnegie Conference Paper No.302b, SALDRU, UCT Cape Town 1984:90.

A greater percentage of its inhabitants is economically active. 61% of the total population is in the age group of 15-54. The remaining percentages comprise young and/ or older people.

Most respondents were of reproductive age. Because the fertility period for females differed from that of the men, (i.e. women recorded fertile within the 15-44 years period, and men as late as 60+ years) their age intervals differed. Their mean average ages were almost the same. The sampled Guguletu respondents had an average age of 28 years (women), and 29 years (men). The Amatola Basin respondents were 27 years (women) and 29 years (men). These situations are shown in table 4:-

TABLE 4

AGE INTERVALS FOR ALL RESPONDENTS

AGES	FEMALES		AGE	MALES	
	GUGULETU NO.	AMATOLA NO.		GUGULETU NO.	AMATOLA NO.
15-19	19	31	15-20	61	29
20-24	43	34	21-30	38	71
25-29	29	27	31-40	21	36
30-34	23	27	41-50	24	6
35-39	19	16	51-60	6	7
40-44	11	13	60+	-	1
45-49	4	2		-----	-----
50-54	2	-	AVERAGE AGE	150	150
55+	-	-		29	29
TOTAL	150	150			
AVERAGE AGE	28	27			

Looking at their occupations, 38% of all sampled Guguletu inhabitants were in the manufacturing industry, 26% in services, 24% not classified, 4% in sales, 3% in clerical, 2% in professional or teaching occupations, with 1% of each in teaching managerial or supervisory and farming positions (Patel, 1984).

According to these statistics, only 43% of the area population is economically active. Distributed by sex, 70 percent men and 30 percent women are economically active.

Overcrowding is a great problem in this area. The statistics reveal that, per dwelling, there are 2,22 people per inhabitable room. Most people (57% of the total area population) live in semi-detached dwellings whilst 20 percent live in free-standing houses, 2 percent live in hostels, 0,2 percent in old age homes, and 21 percent are unclassified (percentages rounded off thus more than 100%).

Personal income levels for Guguletu inhabitants were calculated. On average, men earned R438,11 per month, and women R226,05 per month (Patel, 1984).

The following chapter will focus on the growth of the South African population, especially the African population.

CHAPTER 3

SOUTH AFRICAN POPULATION GROWTH

3.1 BRIEF HISTORY

Is South Africa at present inhabited by many people relative to its land and other economic resources and, therefore is, what someone has called: " a headlong rush towards saturation of the land with humanity?" taking place at present in this country?

In order to answer this question we need to turn to the official figures obtained through population censuses in the country. The author will confine herself to South Africa, thus, she will not look at the population growth trends of other countries.

The first population census for the whole country was compiled in 1904. Before then, non-comprehensive regional surveys were conducted non-simultaneously. The South African statistics in table 5 show us the trend from 1904.

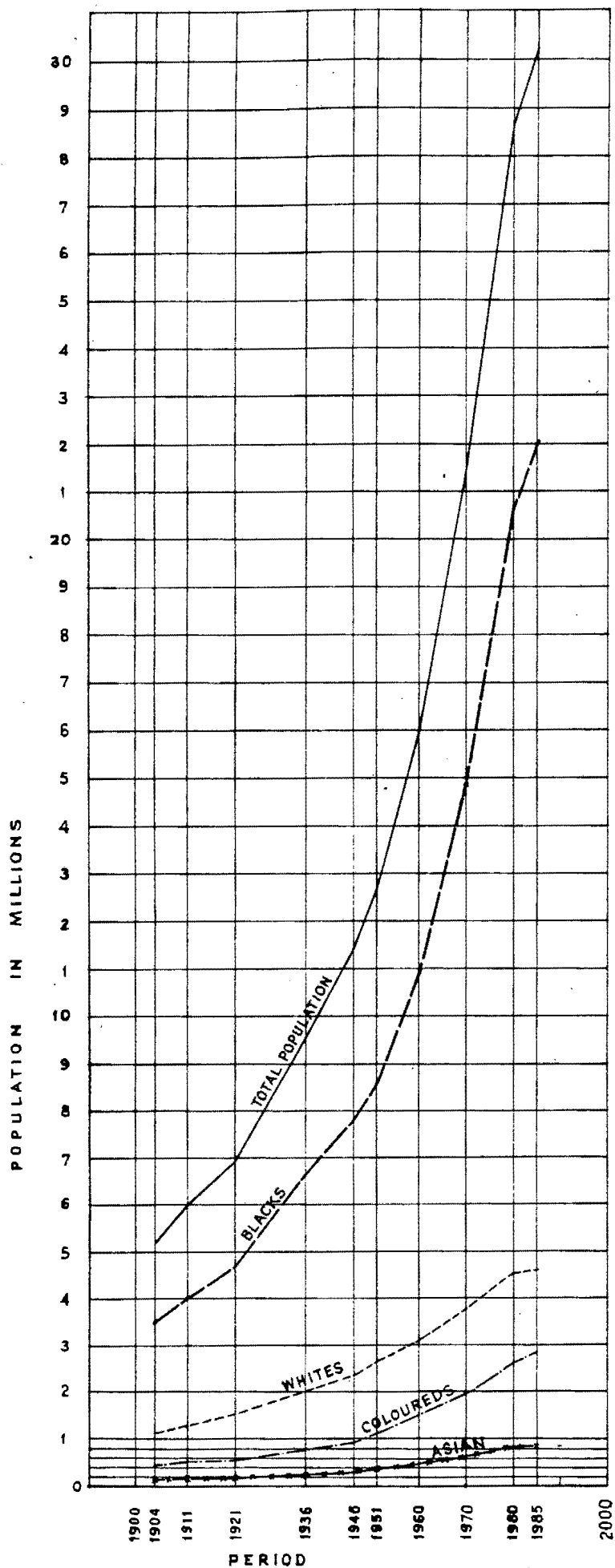
There is unfortunately no compulsory register of vital statistics for the Black population of South Africa. Estimates vary considerably and are sometimes unreliable. They do however serve to illustrate trends, and have been used with this aim in mind.

TABLE 5

SOUTH AFRICAN POPULATION GROWTH - 1904 TO 1985

YEARS	Blacks	Whites	Coloureds	Asians	TOTAL	INDEX
1904	3 490 291	1 117 234	444 991	122 311	5 174 827	100
1911	4 018 878	1 276 319	525 466	152 094	5 972 757	115
1921	4 697 285	1 521 343	545 181	163 594	6 927 403	134
1936	6 595 597	2 003 334	769 241	219 691	9 587 863	185
1946	7 830 559	2 372 044	928 062	285 260	11 415 925	221
1951	8 560 083	2 641 689	1 103 016	366 664	12 671 452	245
1960	10 927 922	3 080 159	1 509 053	477 047	15 994 181	309
1970	14 893 000	3 779 000	1 996 000	614 000	21 282 000	411
1980	20 628 900	4 528 100	2 612 780	821 320	28 591 100	552
1985	22 037 742	4 568 739	2 832 705	821 747	30 260 933	584

- SOURCES: 1. South African Statistics 1986 Central Statistical Services, Government Printers, Pretoria, 1986:1.6.
2. Statistical Survey of Black Development, BENSO, Pretoria, 1978, 1979, 1980, 1981.
3. Grobbelaar J.A.,: Demographic Trends In South Africa: 1980-2015 Paper No. 3, Institute for Futures Research, University of Stellenbosch, 1984:2.
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5. Horrell M. et al : Survey of Race Relations in South Africa 1981 SAIRR, Johannesburg. 1982:53.
6. Mitchell B.R: International historical statistics- Africa and Asia Macmillan Reference Books, London, 1982.
7. Lotter J.M. & Van Tonder J.L.,: Fertility and Family Planning among Blacks in South Africa, Report S-39, HSRC, Pretoria 1976:14.



SOUTH AFRICA'S POPULATION GROWTH.

FIGURE 3

In table 5, South Africa's population shows an increasing trend since the beginning of the twentieth century. The 1970-1985 figures were adjusted for possible underenumeration. The figures for 1980, exclude foreign-born Blacks (immigrant workers). The 1980 figure for Whites reflects an annual gain of 15 000 immigrants. The 1985 figures includes the independent homelands population (Transkei, Bophuthatswana, Venda and Ciskei). The figures for 1985 (published by Central Statistical Services), are based on report S-83 from the HSRC.

All population groups show an increasing trend (see figure 3). The African population, however, seems to grow more rapidly than the other racial groups. "This rapidly growing population which most likely will have to be accommodated close to urban areas, implies a tremendous challenge in terms of employment generation, the provision of basic needs, education, welfare services, infrastructure, etc." (Dostal, 1986:4).

Table 6 shows the total recorded number of Africans (1980) in South Africa and the "independent" reserves. Ciskei's population has been incorporated in South Africa's population because Ciskei received 'independence' in December 1980.

TABLE 6

THE AFRICAN POPULATION BY 1980

	TOTAL	PERCENTAGES
TRANSKEI	2 323 650	11
BOPHUTHATSWANA	1 323 315	6
VENDA	315 545	2
SOUTH AFRICA	16 923 760	81
TOTAL	20 886 270	100

SOURCE: Statistical Survey of Black Development, BENSO, Pretoria, 1980.

Cited in October L. & Young G.: The population of the Cape Peninsula: A statistical summary Carnegie Conference Paper No.303, SALDRU, UCT, Cape Town, 1984:1.

The actual numbers for Africans are believed to be greater than the recorded ones since it is claimed that many are still as yet not enlisted in the population census. Though BENSO figures have been called into question by Abedian (1983), in the absence of national census figures, they are the only ones available.

Life expectancy at birth for the South African population differs amongst races. In 1980, for Whites, it was of the same order as that for the population of the more developed regions (United Nations, 1985; Grobbelaar, 1986). Life expectancy at birth for Blacks corresponds to life expectancy at birth of the populations of the less developed regions of the world. For Coloureds and Asians, their life expectancy, occupy an intermediate position because they have made greater progress in the process of demographic transition than the Blacks who still have a very stable population structure (Grobbelaar, 1986).

3.2 PROJECTIONS OF THE SOUTH AFRICAN POPULATION GROWTH

Table 7 shows the South African population projections for 1980-2000. The Department of Statistics, has estimated the South African population at nearly 29 million in 1980 and 47 million in the year 2 000. Sadie estimated the population at 29 million in 1980 and 50 million in the year 2 000. The Department and Grobbelaar's estimates are lower than those by Sadie because they exclude the 'homeland' population whilst Sadie's figures include it. The comparison shows that the figures from the Department are higher than those projected by Grobbelaar but lower than those by Sadie.

TABLE 7

COMPARISON OF THE PROJECTIONS BY SADIE, THE DEPARTMENT, AND GROBBELAAR

YEAR	SADIE ¹	DEPARTMENT ²	GROBBELAAR ³
1980	29 044 000	28 599 520	28 692 000
1990	38 464 000	37 075 420	36 161 000
2000	50 288 000	47 357 470	44 863 000

SOURCES:

- 1) Sadie J.L : Projections of the South African Population 1970-2000, Industrial Development Corporation
Johannesburg 1973.
- 2) South African Statistics, Department of Statistics, Government
Printers, Pretoria, 1976.
- 3) Grobbelaar J.A. : Projections and Analysis of the South African Population for the Period 1980-2015
Unit for Futures Research, Stellenbosch, 1984.

In table 7, all three (of them) have projected growth in the South African population. If we observe the population growth percentages up to the year 2010 (see table 8), there is an increase in the percentage of the African population. The Whites, Coloureds and Asians are expected to decrease.

TABLE 8

RACIAL COMPOSITION OF THE PROJECTED POPULATION IN 1970-2010

POPULATION GROUP	Years				
	1970	1980	1990	2000	2010
AFRICANS	70,2	72,15	74,85	77,50	80,06
WHITES	17,3	15,84	13,93	12,19	10,69
COLOURED	9,5	9,14	8,53	7,85	7,04
ASIANS	3,0	2,87	2,69	2,46	2,21
Percent	100,0	100,0	100,0	100,0	100,0

SOURCES :1. Sadie J.L. : Projections of the South African Population 1970 - 2020 Industrial Development Corporation, Johannesburg, 1973.

2. Grobbelaar J.A.:Demographic Trends in South Africa:1980-2015 Paper No.3, Institute for Futures Research, Stellenbosch, 1984.

From table 8, the share of Whites, Coloureds and Asians in the total population is expected to decline in favour of the growing share of the African population. By 2010, the total South African population is expected to consist of 80,06 percent Africans.

3.2.1 Age composition structures and growth rates

Profound changes in the structure and composition of the South African population are expected to take place between 1980 and 2010. According to Grobbelaar (1984b), the White, Coloured, and Asian population groups are expected to gradually assume population structures tending towards a modern stationary state (that is, fewer births and less persons in the young cohorts; fewer deaths and therefore more persons of adult age and especially more persons in the post-retirement cohorts).

The Black structure is still expected to be broad based (that is, were representative of young population) despite the fact that the natural growth rate may have begun to decline. Such a population is characterised by a substantial increase in absolute numbers in the young cohorts, and despite declining mortality, still a relatively small proportion of the population in the post-retirement cohort.

NB The expected changes (in table 8) are bound to have an influence on the demand and supply of a vast number of goods and services, provided by local and central government such as infrastructure, housing, education, health, and social welfare services. "To make ends meet at a national level, would require dedication and the will to succeed among 'leaders' of all groups, and at all levels, in their tasks to create a worthwhile future environment for everyone by way of responsible judgment and choice" (Grobbelaar, 1984a:35).

Table 5 to 9 show that, in spite of a decline in population growth rates, the increase in absolute numbers of people is considerable. In table 9, the bulk of the increase in the world population has been, and will further be, in the less developed regions.

TABLE 9

EXPECTED ANNUAL GROWTH RATE OF TOTAL WORLD POPULATION: 1980-2010

	1980-2010		
	Male	Female	Both Sexes
World	1,53	1,51	1,52
More developed regions	0,57	0,49	0,53
Less developed regions	1,79	1,81	1,80

SOURCE: United Nations: World Population Prospects: estimates and projections as assessed in 1982, Department of International and Social Affairs, New York. 1985:140-144. Medium Variant forecasts.

Extract from: Grobbelaar J.A.: The aging of the South African population : Implications for business, Occasional Paper no.6, Institute for Futures Research, Stellenbosch, 1986:5.

NB / The less developed regions are expected to grow much faster than the developed regions. "Of the world's eight major areas, the highest average annual rate of population growth today is in Africa, 2,9%" (United Nations 1981:6). The World Bank in its Annual Development Report, 1981, has reported that the average annual growth rate of the whole population in South Africa for 1960-1970 was 2,6% (the official figure for 1960-1970 was 2,8) and 2,7% for 1970-1979. The

country's population is increasing at a rate of 2,3 children per family instead of the desired replacement level of 2,1 (Financial Mail 7/3/86). On the other hand, the deputy minister of health and welfare, Dr. G. de v Morrison has said that the South African population was growing at an average of 2,3% a year- a higher growth rate than that of the advanced countries. According to him, if this continued, South Africa would have a population of 48 million by the year 2 000 and by the year 2 040 the population would be 138 million. (Social Work, March 1985:62)

WB "More forecasters agree that, besides the accumulated wealth, know-how and technological developments of the First World it is largely the discrepancies in population growth which make it virtually impossible for developing countries to bridge the development gap within the next few decades." (Dostal, 1984b:2)

Grobbelaar has projected a decrease in the rate of population growth. For 1980-1990, he said the rate would be 2,38% pa. and 2,18% pa. for 1990-2000. Simkins (1984a:33) agrees with him and has said that if Black fertility dropped faster, population growth rates would drop rapidly to 2,28% pa. for 1980-1990 and 1,98% for 1990-2000, in which case the 1976-2000 average would be 2,23%.

Fertility assumptions take into consideration past and present fertility trends in each country. Since the Africans currently have high fertility, it is generally assumed that (1) fertility

will decline as economic and social development takes place; (2) existing and/or anticipated government policies and programmes as well as non-governmental activities aimed at such a goal will expedite the process of fertility decline; and (3) once the decline begins, it will begin slowly, gain momentum, and then slow down its speed again (RSA, 1983b).

Mortality amongst Africans is expected to further decline due to reduction of neonatal mortality. In urban areas, early neonatal mortality rates have declined from 35/1 000 in 1968 to 19/ 1 000 in 1979. Post-neonatal mortality, by 67% from 60/1 000 to 20/ 1 000 (Herman, 1984:4).

When infant mortality rates decline to a sufficiently low rate, as has occurred in the urban black, perinatal mortality- stillbirths and early neonatal death- becomes an important measure of infant health. (Herman, 1984)

3.2.2 Urbanisation

In South Africa, despite a relatively long history of urban and economic growth, only 55,9 percent of the total population lived in urban areas in the RSA in 1985 (excluding peri-urban and closer settlement areas). The level of urbanisation among Blacks in the RSA stood at only 39,6 percent in 1985, and in the self-governing national states only 16,1 percent of the total population lived in

urban areas (Central Statistical Services, 1985). This was the result of specific policies aimed at discouraging permanent Black settlement in White urban areas (Muller, 1982).

The metropolitan areas are expected to experience an accelerated population growth (Kok, 1986). Thus, an average annual rate of 6,1 percent has been estimated for metropolitan Cape Town which will cause its Black population to increase from 137 900 in 1980 to 1 379 330 persons in the year 2 000 (City of Cape Town, 1986). In South Africa, a First and a Third World components must be accommodated in the same urban space in accordance with the views of all the participating groups (RSA, 1985).

Investment in economic growth (i.e. the creation of job opportunities, raising the income levels, the accumulation of capital for growth, etc.) will be difficult in the metropolis (and elsewhere), since large-scale population growth necessitates demographic investments (in education, health services, housing, and other urban infrastructures, etc.) and leaves little scope for other economic development actions. (Kok, 1986)

3.2.3 Gross and net reproductive rates

Apart from fertility behaviour of females of reproductive age in a population, two significant factors influencing the growth of a population are its gross and net reproduction rates. The gross reproduction rate (GRR) of a population is defined by Haupt and Kane

(1980:8) as "the average number of females that would be born alive to a woman (or group of women) during her lifetime if she passed through her lifebearing years conforming to the age specific fertility rates of a given year." The net reproduction rate (NRR) in turn, of a population, is defined in similar fashion as the GRR but takes into account that some women will die before completing their childbearing years. A NRR of 1,00 means that each generation of mothers is having exactly enough daughters to replace itself in the population (Haupt & Kane, 1980:10).

Table 10

Net Reproduction Rates of South African females for 1980-2010

	1980-85	1985-90	1990-95	1995-2000	2000-2005	2005-2010
Africans	2,180	2,145	1,982	1,830	1,694	1,564
Whites	0,971	0,860	0,824	0,826	0,828	0,829
Coloureds	1,345	1,212	1,098	0,994	0,905	0,823
Asians	1,300	1,169	1,059	0,956	0,871	0,876

Source: Grobbelaar J.A.: The economically active population in South Africa 1980-2015 Institute for Futures Research, Stellenbosch, 1984:10.

From the table above, it can be seen that despite the expected decline in fertility among all population groups, the NRR of Blacks by 2005-2010 is expected to be still well above the NRR of Coloureds and Asians in the period 1980-85. With an NRR of 1,564 by 2005-2010, the Black population is expected to continue increasing fairly rapidly beyond 2010, implying that the Black population is "still many years away from reaching the modern stationery state" (Grobbelaar, 1984a:9).

3.3 POPULATION GROWTH AND POVERTY

From the previous figure and tables, population growth is taking place in South Africa (especially amongst Africans) at a fairly rapid rate.

The potential long-term benefits of having more people must be weighed against the immediate or short-term costs of coping with rapid population growth, which has resulted in lost opportunities of raising living standards (World Bank, 1984b). The pressure of rapid population growth represents perhaps the most fundamental of the constraints facing the developing world in the next decades.

According to the 1979 paper by the Ford Foundation (Ford Foundation, 1985), governments of most large developing countries, now recognise that without successful containment of explosive living standards, there is little hope of genuine improvement in population growth, no matter what political or economic system is chosen. These remarks are still pertinent.

Population growth in developing countries is a greater economic burden now than it was many years ago in today's developed countries, for a number of reasons. Firstly, the average annual population increase of 2 to 4 percent is at present much more rapid in most developing countries than in industrialising Europe, where

it seldom exceeds 1,5 percent per year. Secondly, unlike in nineteenth-century Europe, large-scale international emigration from today's developing countries is not a practical proposition. Thirdly, compared to Europe, Japan, and North America at the time of their most rapid population growth, income in developing countries today is still low, human and physical capital are scarce, and in some cases political and social institutions are also less firmly established. Finally, many developing countries whose economies are still largely dependent on agriculture can no longer draw on large tracts of vacant land (World Bank, 1984b). A decline of Third World population growth to below 2% cannot be expected in the immediate future. (Ford Foundation, 1985)

WZ According to the World Fertility Survey conducted over the past decade, the average number of children desired by couples in developing countries is about 4 and is much higher in rural areas. This implies continued growth rates of 2 percent or more. Many couples who say they want no more children do not use any means of birth control, and among those who do, discontinuation rates are high (Ford Foundation, 1985). Nonetheless, population projections assume that reductions in fertility will exceed reductions in mortality in the decades ahead and that growth rates will decline. A more effective family-planning effort will be required if that decline is to be achieved (Kok, 1986; World Bank, 1985a).

Positions supporting the need to reduce population growth through special programmes (e.g. Family Planning) and policies are typically based on more than one argument:-

NB { 1. Unrestrained population increase is widely seen to be one of the major causes of poverty, low level of living, malnutrition, ill-health, environmental degradation, and a wide array of other social problems. On the other hand, widespread absolute poverty and low levels of living contribute to large family size due in part to parental desires for increased economic security in old age. }

poverty causes large families & loss of post fertility to means to control unwanted pregnancies { 2. There are many families and single women who, if only they had the means to do so, would have limited the sizes of their families. Hence, the main problem is to provide modern birth control devices such as the pill, injection, intrauterine device (IUD), and, increasingly, "voluntary" sterilisation. Family planning programmes with clinics throughout the country therefore need to be established both to 'educate' people about modern methods of fertility control and to provide them with safe means to practise it. }

3. At a United Nations convention held in Teheran, in 1968, a resolution was adopted asserting that it is a "fundamental human right for each person to be able to determine the size of his or her own family". Since maternal and child health are also related to the ability of parents to space their children at greater intervals, the human rights position bases its "freedom to choose" advocacy of family planning on grounds of health as well as family size.

4. Population growth intensifies and exacerbates the economic, social, and psychological problems associated with the conditions of "underdevelopment", especially since it retards the prospects for a better life for those already born. It also places increasing strain on limited government revenues simply to provide for economic, health and social services for the additional people. This in turn prevents an improvement in the levels of living of the existing generation.

It follows that economic and social development are necessary conditions for bringing about an eventual slowing down or cessation of population growth at low levels of fertility and mortality. But it is not a sufficient condition. That is, development policies (concerning for example, education, health, income, employment, status of women, residence, etc.) provide people with the incentives and motivations to limit their family size. Population policies (concerning for example, family planning programmes, breastfeeding promotion, etc.) are needed to provide them with the (technological) means to avoid unwanted pregnancy. (The World Bank, 1984c)

Based on such arguments, it seems correct for us, here in South Africa, to consider our growing numbers as a problem. There is a growing debate on the question of the maximum carrying capacity of the country. The ability to efficiently use our physical resources is important. This includes the human resources of knowledge, understanding skills, creativity, determination, willingness to

work, etc. The more we can develop our human and capital resources, the further we can extend our (pre)-given physical resources. (Dostal, 1985)

In South Africa it is argued that the carrying capacity of the rural (especially Black) areas has already almost been exceeded (Spies, 1983 cited in: Dostal, 1985). This (agreeing with Dostal) is true in the context of a subsistence agricultural economy. It would not necessarily be true if the population inhabiting these areas would have developed their human and capital resources to the same extent as industrialised societies. (However, it should be noted that there are many other constraints).

Unemployment and underemployment are likely to get worse even under the most favourable, realistic economic scenarios. Dostal and Grobbelaar (Dostal, 1984b) forecast an increase in the supply of labor from 10,8 million (with a corresponding demand of 7,5 million) in 1980, to 17,9 million (with a corresponding demand of 8,6 million) by the year 2 000. This forecast assumes a 2 percent average annual population growth rate till the year 2 000. This implies an increase in the percentage of the population living on the urban periphery in relative terms from 30 percent in 1980 to 52 percent by the year 2 000. It will have to be absorbed by the informal, small-scale business sector or swell the number of the unemployment and underemployed, since it is unlikely that subsistence agriculture can sustain a larger number of people. (Dostal, 1984b)

South Africa therefore appears to face large increases in its labour force and therefore needs a sustained increase in both human and physical capital investment, merely to maintain the stock of capital per worker and current levels of productivity. Failure to address the population problem will itself reduce the set of feasible macro-economic policy options, and permanently foreclose some of the available long-term development opportunities (World Bank, 1984b).

*a cause
poverty*

The pattern of state expenditure reflects huge inequality between African and White education. According to the research done by the Research Unit for Education System Planning at the University of Orange Free State, the computed African per capita educational expenditure figures for the whole of South Africa are, for 1979/80 (R71,03), and (R87,27) for 1980/81. These figures are 9,8 per cent and 7,5 per cent respectively of the per capita expenditure on White education (Pillay, 1984).

If we look at the composition of the expenditure by the state for the different racial groups of South Africa in table 11, we find this picture:-

TABLE 11

THE 1969/70-1975/76 SHARES OF GOVERNMENT EXPENDITURE BY RACIAL GROUP (in percentages)

RACE GROUP	1969/70	1975/76
White	58	56
Coloured	13	12
Asians	4	4
Black	25	28
	100	100

SOURCE: Simkins C. :Public expenditure and the poor: Political and economic constraints on policy choices up to the year 2 000, Carnegie Conference Paper No. 253, SALDRU, Cape Town, 1984:28.

According to Simkins (1984a), between 1967/70 and 1975/76 there was a small shift in the share of this expenditure on the various racial groups- a drop for that of the Whites and Coloureds and a small rise for the other racial groups. The growth in the share of expenditure on Africans is, however, not sufficient to eradicate the inequality gap in the future. However, part of the discrepancies in per capita expenditure is due to the large proportion of Africans being in primary education which has lower per pupil expenditure than in secondary education.

Since the Black population is expected to be broad based, the total population below 15 is likely to grow from 11,4 million (8,9 being Black) in 1980, to about 16 million (13,7 million comprising Blacks) by the year 2000. This means that, in future, the educational

system will have to cope with "absorbing the growing numbers of pupils as well as being more egalitarian" (Dostal, 1984b:8). These growing numbers will further demand an increase in the number of teachers.

The transfer of labour out of agriculture proceeds much more slowly in today's developing countries (than in industrialised countries) because of the high rates of growth in their total labour force and their low initial share in modern sector employment. Many of the technological innovations available to developing countries are of a labour-saving kind, as they are mainly derived from the capital-rich industrial countries. Subsidies on capital investment in the developing countries further serve to discourage labour-intensive production methods and lead to inefficient use of scarce capital resources (World Bank, 1984a). This is considered a serious threat to job creation in South Africa. "An investment drive to create employment will be less effective unless there is structural change. Such change is difficult to perceive since technological developments work against it. The rapid advances in information technologies, automation and robotics and the productivity increase associated with these technological developments threaten to replace many workers, especially the lesser skilled and those involved in routine tasks. These technologies are likely to favour the large, highly industrialised economies of the world. It is unlikely that most developing countries will be able to catch up with the growing sophistication of present and likely future scientific and technological developments." (Dostal, 1984b:7)

The difficulties caused by rapid population growth are not due to finite natural resources, at least not for the world as a whole. But neither does rapid population growth itself automatically trigger technological advancement and adoption. If anything, rapid population growth slows the accumulation of skills that encourage technological advancement, and insofar as there are diminishing returns to land and capital, is likely to exacerbate income inequalities. This is most obvious at a family level, where high fertility can contribute to a poor start in life for children (World Development Report, 1984). But it is also true for a country as a whole.

doesn't stop
it at all
but slows
it

only
contributes
but not cause

The cost of rapid population growth differs greatly from country to country. These differences are not confined to differences in natural resources. In countries heavily reliant on agriculture, a scarcity of natural resources does matter. But the underlying problem is low income and low levels of education, which are sources of rapid population growth and simultaneously make the required adjustments to it more difficult. That is why rapid population growth is, above all, a development problem (World Development Report, 1984).

In South Africa, most of the problems experienced in the different sectors, for example, employment, education, health, energy, income, etc. cannot be divorced from the patterns of population development. Efforts to overcome such problems in both the urban and rural areas must involve the reallocation of resources at a national level.

However, although a reallocation of resources at a national level is important, it is not sufficient to bridge the development gap.

WB According to Wilson (1986), government expenditure and community involvement are important. For Third world countries to reach population equilibrium, there must be an "economic freedom" (Ford Foundation, 1985).

WB From the discussions above, the problems of poverty, unemployment, low levels of living, are to a large extent a result of population growth. The poverty in this country, (especially amongst Africans), is likely to increase in relative and absolute terms. If the present population growth continues to increase, it will threaten development policies aimed at reducing the level of poverty of the Africans. Population control measures are imperative to allow for a faster socio-economic advancement. This in turn will facilitate a decline in population growth.

PART B: THEORIES AND LITERATURE REVIEW ON THE DETERMINANTS OF
POPULATION GROWTH

CHAPTER 4

THEORIES AND DETERMINANTS OF POPULATION GROWTH

In this chapter, the first section will focus at the theories of population growth in general. The next section will focus on the determinants of population growth. This will serve to highlight the interrelationship between population growth and socio-economic development, later detailed in the thesis.

4.1 THEORIES OF POPULATION GROWTH

4.1.1 GENERAL

Articulate views about population date back to ancient China. Confucius and other philosophers expressed themselves in favour of population growth. There were other authors who discussed various possible checks on population growth such as insufficient food supply, wars and costly marriage ceremonies.

In ancient Greece, Plato and Aristotle believed that there was an optimum population of a specific size which would be the most favorable for each city-state from the point of view of defense,

security and government. Aristotle held that 'an excessive numbers of inhabitants would breed poverty and social ills' (United Nations, 1973).

The Romans, took a 'Populationist' view (i.e. a view of sex as a natural and God-given gift). So did a number of early and medieval Christian writers. Some of them, for instance Augustinus, took a moral view which in fact meant that they condemned sexual activity outside wedlock.

Among Moslem authors, Ibn Khaldoun, who lived in the 14th century is of special interest. He held that 'a densely settled population was conducive to higher levels of living since it permitted a greater division of labour, more effective use of resources and military and political security. Secondly, he maintained that a State's periods of prosperity alternated with periods of decline and that cyclical variations in the population occur in rhythm with these economic fluctuations' (United Nations, 1973).

Mercantilist ideas, which dominated economic thinking in Europe during the 17th and 18th century, stressed the advantages of a large and growing population. However, during the latter part of the 18th century, opinions began to diverge because the physiocrats opposed mercantilist thinking. Nevertheless, both Quesnay and Mirabeau, two well-known physiocrats, emphasized the

desirability of a large population. The latter, however, also stressed that only if agriculture was sufficiently encouraged, could a country support a large population.

While economists and philosophers were developing these views on population, another type of writer emerged - writers who were more interested in studying the actual growth of population and the rules underlying it, than in expressing views about a desirable growth rate. The Englishman, Graunt, in his famous treatise "Natural and Political Observations on the Bills of Mortality" which was published in 1662, observed the regularity in such phenomena as the sex ratio at birth and the frequency of births and deaths. Both he and Petty, with whom he collaborated (as well as a number of other writers such as Euler, Gregory, King and Hume) held that human populations had a tendency to grow geometrically.

Special regard should be paid to the German clergyman and writer Sussmilch. Unlike many of his forerunners, Sussmilch did not believe in a geometric increase in the population. Agreeing with Petty, he contended that quite a short doubling period, down to 10 years, would be possible. However, where his own times were concerned, he thought that the period required for a doubling of the population - if wars and epidemics were excluded - was as much as 40 to 50 years.

The English economist and sociologist Malthus is generally considered to be the first writer to examine the growth of human population. Although others before him had commented on the importance of population size, Malthus was the first to set down a consistent theory in his *Essays on the Principles of Population*, first published in 1798. His theory was based on two propositions: "population, when unchecked increases in a geometric ratio. Subsistence only increases at an arithmetic ratio." Thus the means of subsistence set the limits to the population any area can support, and as these means are extended the population will always press against them unless prevented by some very powerful checks. For Malthus the only possible checks were moral restraints, 'vice' (i.e. measures of birth control, of which Malthus did not approve), and misery (war, famine and disease). Malthus's view was clearly a very pessimistic one that aroused much criticism in his time and has been a source of controversy ever since.

As we have seen above, many previous writers had maintained that there was a general tendency for every population to grow at a geometric rate. Not even the idea that subsistence could only grow at a slower rate was original to Malthus. It was generally held in the 18th century that food supply regulated the growth of population. Among the writers holding his view were James Stuart, and Adam Smith (see United Nations, 1973) who wrote that every species of animal naturally multiplies in proportion to the means of their subsistence. Adam Smith further said that, no species can ever multiply beyond it.

In later editions of his book Malthus modified his original thesis to some extent by maintaining that moral restraint, primarily in the form of delayed marriages, combined with sexual abstinence both in and outside marriage, could prevent a population from growing as rapidly as it should according to its natural tendency. But as Meek pointed out " he himself does not seem to have placed much reliance on this remedy, and all the fundamental doctrines of the original Essays survived to the last edition with only superficial changes ... the Malthusian theory of population remained to the end what it had been at the beginning - an apology for the conditions of the working people, and a warning against all attempts to ameliorate the condition of society. As such it did yeoman service during Malthus's lifetime. And it is still doing yeoman service to-day, over a century after Malthus's death." (Meek, 1953:9-10).

When Malthus wrote his Essays the population of the world was about 900 million and that of England about 8,5 million. While Malthus's Essays seemed appropriate for the conditions of his day, he could not foresee the vast and varied technological developments that later began in the nineteenth and twentieth century. The principle consequences of these developments, in the Western world at least, were an enormous increase in population combined with an equally impressive improvement in the standards of living. The ideas that Malthus expressed were based on the conditions he saw in England in the late eighteenth century. There were few statistics on

Since then it has been found that the observed differences between the fertility of the upper classes and the rest of the population have tended to disappear because family planning ideas and practices, which had been first accepted by the upper class, were gradually accepted by the whole population of Europe. In consequence these theories, which tried to explain fertility differences as a permanent feature, have become invalid.

Today, people are mainly interested in differential fertility because of the insight to family planning ideas. For instance, the differences in fertility between urban and rural populations have become an object of interest. However, it is by no means general that lower fertility can be observed among the urban population than among the rural one.

Dumont (In: Hofsten, 1977) is one of the writers to discuss explicitly the question of how society may influence fertility. He contends that there are three principles of population rather than one. The Malthusian Principle may be said to "hold for animals and men who live like animals i.e. savages.... At a more advanced state... natality always proportions itself to available employment... But in a civilised community... we find ourselves in the presence of a third principle of population which supplants the other two and which furnishes us with an explanation of the phenomena of depopulation in France . Because of the economic cost

of children due to a society of increased social welfare and economic growth, children became an economic disadvantage to parents" (Coontz, 1957:58-59).

Today, similar arguments are often expressed in terms of 'modernization'; it is said that in the developing countries economic growth and increased social welfare would automatically lead to a decrease in fertility as has been the case in Europe. It remains to be seen whether economic and social development is really on the way in the developing countries, for example, South Africa.

The following-up of the family planning campaigns has also attracted considerable interest. Has a family-planning campaign had an effect on the fertility of the group which is the object of the campaign, and how large is this effect? The research findings in the following chapters of this thesis will expand on some of the issues on family planning.

4.1.3 DEMOGRAPHIC REGULATION AND TRANSITION

It has been observed that societies are capable of regulating their own growth and that this process of regulation, which occurs as a result of various factors, follows a fairly recognisable pattern or series of stages. As certain conditions are met, a society will move from one stage to another along a fairly predictable course, in terms of this theory.

According to Stanford (1972:66) this theory of demographic regulation may be stated as follows: "Every society tends to keep its vital processes in a state of balance such that population will replenish losses from death and grow to an extent deemed desirable by collective norms. These norms are flexible and readjust rather promptly to changes in the ability of the economy to support population". He further states that this adjustment, almost everywhere, first takes the form of minimising death rates and then regulating birth rates in such a way that the desired balance or rate of growth is accomplished. In societies where death rates are high there is comparatively little need for regulation of fertility because high fertility is required to offset high mortality. In technologically advanced societies, where death rates have been brought to a low level, high birth rates can cause the size of the family to be larger than that deemed desirable by the prevailing norms of that society. As a result, in such societies the regulation of fertility comes to be identified with group and individual welfare and becomes a positive good and a part of the culture.

This theory is premised on the assertion that every society has a set of norms that guide population growth. These norms are not explicit opinions about desired population size or the optimum rate of growth. They are opinions concerning what constitutes the ideal size of completed family, or the number of surviving children a couple ought to have when it reaches the end of the reproductive period. Any society whose average members believe that it is good

or desirable to have, say, four or more surviving children either will grow rapidly or must face very high mortality. A society whose members agree to bear no more than two children is one that expects to suspend further growth, and expects low mortality.

The effort required to achieve a particular average size of desired family varies with the mortality conditions that exist. If death rates are high, many children will die before they reach adulthood and a couple must 'compensate' for them by 'overbearing' in order to attain the ideal family size. If death rates are low, the couple need only bear the number of children they desire in their ideal family size.

Readjustment to a condition of lower mortality rates therefore requires a lowering of the completed ideal family size to match the growth rate of the present conditions. It will also require a lowering of the estimated amount of 'overbearing' of children, necessary to overcome mortality and attain the desired family size.

Such a double adjustment cannot be arrived at instantaneously. It involves the solution by trial and error of what is actually a rather complex set of demographic interactions, and a modification of the customs, attitudes, and outlook to conform to the new pattern. The speed with which the change can take place depends on

many factors, not the least of which are the intensity and the degree of uniformity of the old fertility attitudes and the extent of communication, discussion, and social consensus.

In these modern times, such a change towards lower mortality rates, can be accomplished in much shorter time because of certain factors that did not previously prevail. Modern demographic science does keep the national leadership informed of its present, and prospective future population. In addition, modern methods of communication and techniques for limiting fertility (e.g. contraception-including safe periods, etc.) are now numerous, varied and cheap, so that every couple has available at least one method that will be acceptable to them. Major and powerful institutional groups like the medical groups, economic planners, many (but not all) religious groups, political leaders and educators are placing the weight of their prestige and influence in favour of fertility regulation.

Because of the combined action of these forces, the efficiency and degree of success with which a population can realise its ideals in practice are much greater today than ever before and will increase even more as further advances are made in contraceptive technology and experience in its use. In other words, the theory of demographic regulation is a positive assertion that nations, when faced with serious overpopulation, will undergo adaptive social change to lower fertility rates and in so doing will adopt a technology of contraception, more quickly, than before.

The theory of demographic transition attempts to explain why all contemporary developed nations have passed through similar stages of development. A transition occurs over a period of years during which time a condition of high death and birth rates changes to one of low death and birth rates.

This theory is frequently put forward; it was first introduced by Notestein (1953). In a way it is a general theory that describes the development which it contends all populations must undergo in the process of 'modernisation'.

The starting point for the transition argument is a population in which both fertility and mortality are high. Years with population growth alternate with years when there is decline in the population. It has been observed from historical data for European populations, that a long series of years with population growth may be offset by a single year in which the number of deaths is very large owing to an epidemic, a war or a famine caused by crop failure. In the long run population growth during this first phase of the transition is small or negligible. The few areas that are still at this stage of development are among the least economically developed in the world.

Afterwards follows the second phase during which mortality declines as a consequence of improved health methods, better diets, higher incomes, etc. leading to a gradual rise in the life expectancy from about 40 to 60 years. However, the decline in death rates is not

immediately accompanied by a decline in fertility. As a result, the growing divergence between high birth rates and falling death rates lead to sharp increases in the population growth compared to past centuries. This stage marks the period of transition from stable or slow growing populations to rapidly increasing numbers. Many of the Asian and African countries are at this stage.

South African Blacks are still at the transitional (or explosive) phase where mortality rates are declining because of (amongst other things), improved health methods (see RSA, 1983b). The success of contraception amongst Africans can be weighed against the evidence found in the research.

The third phase is not that different from the second phase. Death rates continue to drop, and while birthrates may be reduced somewhat, the rate of population growth is high. The persistence of high birth rates perhaps as a result of the low levels of living causes overall population growth rates to remain relatively high.

In the fourth phase, death rates are low and changing little, and birth rates are steadily declining, with a resulting decrease in population growth.

The final phase has low and fairly steady birth and death rates. (In the long run birth rates will fluctuate much more than death rates.) Population growth is relatively low- in a few cases near zero, if not negative.

The transition has a purely demographic aspect, too. A decline in mortality must inevitably be followed by a period of rapid population growth. Even if a decline in fertility follows immediately, there must be a long period of growth. The simple fact is that when there is a change so that people live longer, there will be more people alive at one and the same time.

The theory of differential fertility is of great interest because of its insight to family planning ideas. The President's Council Report on Demography (RSA,1983b) has sought the active, voluntary support of each population group in the National Family Planning Programme (NFPP) in South Africa to give every couple the opportunity of choosing the number of children it desires. The approach has been three-pronged: an intensive campaign to publicise family planning through the mass media; integration of the services as a component of comprehensive health care; and expansion of the corps of advisory personnel to motivate people to make use of the services. Although the educational campaign is directed at all four population groups in South Africa, because of the lack of family planning and high fertility among Blacks, the bulk of the advertising is aimed at this group (Ferreira, 1984). In this

thesis, the extent of the family planning programme amongst females will be looked upon (at both urban and rural area), and the attitudes of African men towards these services will be discussed.

According to the theory of demographic regulation and transition, the shift from a high to a low level of fertility is ushered in by the development of differential fertility. Fertility decline is first found among persons with a high level of education, occupational status, and income (Du Plessis & Coetzee, 1974). According to the World Bank (1985a:4), high fertility in the modern world may be seen as a symptom of: lack of access to health services, which would reduce the need to insure against infant and child mortality by having many births; lack of access to education, which could take children off the farm, reducing their immediate labour value, and which could also broaden a woman's outlook and give her some degree of control over her life; lack of access to social security and forms of insurance for old age, including land-ownership, that might replace children; lack of access to consumer goods and social opportunities that compete with child-rearing; lack of access to the media, which promote such goods and often support modern values and the idea of personal control; and lack of access to family planning services, which provide the means to limit births.

These changes always go together with, and possibly generate and are reinforced by, the increasing availability of methods to regulate fertility. The contribution of contraception is of importance

(World Bank, 1984b). As individuals gain access to services and opportunities, the high-fertility system breaks down with development (in the long run) as the answer to fertility decline.

With growing urbanisation, more and more children are taken off the farm and placed in settings where their labour is of less value. Urbanisation also breaks up kin groups and reduces reliance on children, who go off to seek their fortunes elsewhere. Private pensions and social security substitute for dependence on children in old age. Urban growth feeds technological change, which in turn requires an increasingly educated labour force, raising the costs of childrearing and reducing the utility of child labour. Rising education levels are self-reinforcing, with more educated women postponing marriage and seeking more education for their children, when they do marry, and possibly beginning to consider limiting their families to be able to afford childrearing costs (World Bank, 1984b).

The rapid population growth rates in some parts of the world mean that a great deal of urbanisation results simply from the fact that more people reside in rural areas. The fall in mortality has enabled Third World countries to make death-control gains in twenty years that required 70 to 80 years to achieve in industrial countries, starting from a similar level. In both urban and rural areas the net reproduction rates are higher than they ever were in most of the industrial countries. City population growth is to some

extent a function of good health and low mortality, but it is also a function of the very changes that make better health possible. Economic improvement, public welfare, international aid, subsidised housing, and free education make the penalties for having children less than they once were (Berry, 1981). The role of the government is therefore more important in developing countries now than it was for advanced economies when they were at similar levels of urbanisation.

4.2 LITERATURE REVIEW ON THE DETERMINANTS OF POPULATION GROWTH

The African population in South Africa is showing an increasing trend far greater than that of the other population groups in the country (see figure 3). This section will focus at the determinants of African population growth and the general determinants as discussed in the international literature.

4.2.1 DETERMINANTS OF AFRICAN POPULATION GROWTH IN SOUTH AFRICA

If a decline in the South African population growth is to take place, the following factors should be present: "economic growth; increased literacy and improved education; effective health and medical services; appropriate social and family structures and functions; urbanisation; and an effective family-planning programme" (RSA, 1983 in:Kok, 1986:6).

Lotter and Schmidt (1973) from their study amongst Blacks, deduced certain factors and social conditions associated with fertility decline (or which are regarded as a prerequisite for a decline). The structures based on kinship are weakening in cities and the social political, economic, and religious value of children become more vague as the individual orients himself towards more specialised institutions. The male-dominant family is making way for more equal relationships (it has been averred that especially women are more motivated towards small families) and a shift from ascribed to acquired status is in evidence together with greater possibilities for social mobility. Lotter and van Tonder (1976) and Lotter (1977b) in their research, found other important factors (or conditions) of importance for the decline of fertility. These are the proportion of literate persons, industrialisation and urbanisation, exposure to media, female labour force participation, equal status for women, extension of social services and especially the institution of old age pensions, a decrease in infant mortality, the education of the children, the availability of modern contraception, and change in male attitudes towards family planning and family size. N-B

Attitudes of African men towards the use of contraceptives, can be a major obstacle to the general acceptance of family planning. The husband's dominant position plays an important part in the family-building process, especially of the Black people of South Africa. (Lotter, 1977a; van der Merwe & van Wyk, 1982)

NB / Improvement in family planning efforts can give short-term results, while the other variables can give relatively long-term results because improvement of the programme effort can theoretically be implemented 'overnight' with relatively little financial investment, whilst the other variables' improvements are expensive and need many years of preparation and implementation before a 'take-off' stage is reached. (Kok, 1982)

The age at which women marry and enter into sexual unions, the rate at which children are born, and the total period of exposure to pregnancy during the reproductive years of a woman, are important factors in population growth (Lotter and van Tonder, 1976). "While fecundity provides biological potential for reproduction, age at first marriage and a variety of other factors interact with it to determine a woman's actual reproductive performance " (van Tonder, 1985:10).

NB / Lotter and van Tonder (1976), and later, van Tonder (1985), found an inverse relationship between education and fertility. A general decline in Black fertility will be preceded by lower fertility among the high educational level categories and in the cities.

NB / Kok (1982) found adult literacy rate as the most important single socio-economic factor explaining and contributing indirectly to mortality level. Its effect on mortality is negative, meaning that improvement in literacy can be expected to result in lower mortality.

The association between urbanisation and fertility is weaker than that of educational level and fertility. There is a considerable degree of differentiation in the case of a person with high (9+ years of schooling) educational status, and lower fertility amongst urban than the rural groups. The fertility of urban groups with low educational levels (0-3 years of schooling) is higher than that of rural women. There is a small rural-urban differential because there are urban dwellers still orientated towards traditional norms and values. (Lotter & van Tonder, 1976)

Kok (1982) found a trivial correlation between fertility and urbanisation, which means that more than 50% of the variations in fertility rates can be attributed to other reasons than urbanisation.

4.2.2 INTERNATIONAL RESEARCH ON THE DETERMINANTS OF POPULATION GROWTH

components of population growth
Mortality, fertility and international migration are the three }
components of population growth (United Nations, 1980a; World Bank, 1984a). The levels, patterns, and trends of fertility are influenced by a wide variety of factors, many of which are intricately interrelated. According to the study that was undertaken by the World Fertility Surveys (In: United Nations, 1980a), the demographic and socio-economic factors analysed in

Factors related to fertility.
relation to fertility are: age at first marriage, duration of marriage, urban/rural residence, wife's level of education, and husband's occupation, fertility preference and desired family size.

According to the study by the United Nations (United Nations, 1980b:48), age at first marriage is one of the important determinants of ultimate family size. In most societies, where family planning is not widespread, women who marry early will complete their childbearing with more births than women who marry later (the reverse may also occur in societies where child marriage is customary and fecundity impairments become widespread). In addition to a shorter period of exposure to conception, it is suggested that women who delay marriage become exposed, through education or employment, to influences that provide alternatives to childbearing, with an effect that their fertility desires are reduced (World Bank, 1984b:46-47).

Leasure in 1963 and Siffman in 1965 (In: United Nations, 1973) maintained that, in the absence of illegitimate births, a rise in the age at marriage can yield a marked reduction in fertility in high-fertility populations. In 1961, Coale & Tye (In: United Nations, 1973) showed that postponement of marriage can reduce birth rates and population growth even when it does not accompany a reduction in completed family size. "The higher the age of marriage, the lower the average number of live births" (United Nations, 1980a:48).

Low status for women also induces a preference for sons over daughters, which contributes to higher fertility. Son preferences have been shown to induce women to want additional children and to reduce contraceptive use. The stronger preference in most countries is, however, for a balanced sex preference, or for some children of each sex (Pullum, 1983; Bulatao and Fawcett, 1983).

Variables correlating with fertility decline are: "adult literacy; primary and secondary school enrollment as a percentage of the 5-19 years old group; life expectancy at birth; infant mortality rate; percentage of adult males in non-agricultural labour force; GNP per capita; and percentage of population in cities of more than 100,000." (World Bank, 1985a:57).

Education, to significant levels and especially in urban surroundings, causes conditions which are regarded by Goldscheider (1971:151) as "perhaps necessary and sufficient... for the transition from high to low fertility." They are " (1)the shift from kinship dominance to an emphasis on the nucleus family; (2) improving living standards and rising aspirations for social mobility, and (3) changing emphasis from ascription to achievement, from traditionalism to secularism; and general values and goals emphasizing individualism and rationalism."

In almost all developing countries, fertility differences associated with urban/rural residence are smaller than those found for educational status (United Nations, 1980b). Education appears to have a greater influence on fertility than does type or place of residence. The effect is also larger for female education than male education (World Bank, 1984b). The strong negative association between family size and the education of the wife persists across marriage cohorts (United Nations, 1980b).

According to the World Bank (1985a:131), female schooling, family planning effectiveness, per capita income, and the fertility rate are the determinants of infant mortality. However, "female education seems to dominate all other variables as a determinant of changes in the infant mortality rate (IMR)."

Reduction in infant and child mortality contributes to lower fertility only where there are no serious obstacles to using birth control (Heer 1983, In: World Bank, 1984c). Similarly, the contribution to fertility decline of female employment in the modern sector should be greater where contraception and abortion are more readily available. Easy availability of fertility regulation methods may be less critical in permitting improvements in female education to reduce fertility, because education itself improves a woman's access to such methods. The effect of education appears to be greater at higher levels of urbanisation (Cochrane, 1979), which may be linked to the greater commercial availability of regulation methods. The prospects for further urbanisation leading to lower

fertility appear best in more urbanised countries (like Latin America), and appear poor in the rural countries (like, for example, sub-Saharan Africa). (World Bank, 1984b)

The study by the United Nations (1980a) has found per capita income negatively related with total fertility and population growth rates. Based on income per adult equivalent or income per worker, the interactions were not significantly different from those based on income per capita. Both income indicators showed a moderate to moderately strong association between their level and the level of fertility.

Employment depends on education, is bound up with residence, and results in a greater or smaller increase in income. Women employed in the modern sector, tend to have lower fertility. Where an inverse relationship does exist between urban, modern-sector female employment and fertility, contraceptive use apparently accounts for part of it (Brazzell, 1983). Of equal significance is the delay in marriage that results from female employment (Duza and Baldwin, 1977).

The effect of family planning programs differ from country to country. In many countries (of sub-Saharan, for instance), the prospects are strong that fertility will rise in this decade, with reduced sterility and shorter durations of breastfeeding and abstinence. Family planning programs and related development

measures may partly offset this rise, though there is little likelihood that they will produce an immediate fertility decline (World Bank, 1984b). However, socio-economic development in many countries, does in the long run, contribute greatly to lower fertility.

The following chapter will discuss the results from the research done in Guguletu and the Amatola Basin.

CHAPTER 5

RESULTS FROM THE RESEARCH

The levels and trends of population growth rates are largely determined by fertility, mortality, and migration. The transition from high to low fertility in Europe (see Chapter 4) took place largely because couples made small-family choices and learned to implement them. For South Africa, Grobbelaar and Simkins have projected a decrease in population growth if the Black fertility were to drop.

5.1 INFANT MORTALITY

From the research that was conducted, this is the picture that was obtained from the females on their still-births and miscarriages (see table 12).

Total pregnancies denoted the total number of all pregnancies (live births, miscarriages, and stillbirths included) the women respondents had had. Amongst the rural female respondents, 90% had had no miscarriages as compared to 86% of the Guguletu women. Again, 98% of Amatola Basin women as compared to 96% of Guguletu women had had no stillbirths. There were only 7% of Amatola Basin women who had had at most 1 miscarriage against 13% of the Guguletu women. None of the female respondents in either area had had more than three miscarriages or stillbirths.

TABLE 12

TOTAL NUMBER OF PREGNANCIES FOR FEMALE RESPONDENTS

	RURAL		URBAN	
NUMBER OF OCCURRENCES	MISCARRIAGE	STILLBIRTH	MISCARRIAGE	STILLBIRTH
0	135 (90%)	147 (98%)	129 (86%)	144 (96%)
1	11 (7%)	2 (1%)	19 (13%)	6 (4%)
2	3 (2%)	1 (1%)	2 (1%)	-
3+	1 (1%)	-	-	-
TOTAL NO. OF THE RESPONDENTS	150 (100%)	150 (100%)	150 (100%)	150 (100%)
TOTAL NO. OF OCCURRENCES	20	4	23	6
TOTAL NO. OF LIVE BIRTHS	374		328	

In table 13, of the 374 children belonging to the rural females, 71 had died (24%). Amongst the urban females, of their 328 children, 40 had died (14%). Most of these deaths, 93 percent (Amatola Basin), and 90 percent (Guguletu), occurred in less than a year. The infant mortality in the Amatola Basin was 176/1000 and, in Guguletu 109/1000 (it is calculated as the annual number of infants who die before they reach age one. It is expressed as a rate per thousand births).

Chi-square tests were used to test all hypotheses in this thesis (see Spiegel 1972:209; Korin 1977:203; Fleiss 1981:58; SAS User's Guide 1985:945). In the first test, the author wanted to test the difference in the proportion of infant and child death for the Amatola Basin and Guguletu females.

The null hypothesis (H_0) stated that the proportion of infant or child death of the Amatola Basin women was equal to that of the Guguletu women. The alternative hypothesis (H_1) was that the proportion of infant or child death of the Amatola Basin women was greater than that of the Guguletu women.

	FREQUENCIES OBSERVED			FREQUENCIES EXPECTED		
	died	not died	Total	died	not died	Total
Amatola	71	303	374	59,14	314,86	374
Guguletu	40	288	328	51,86	276,14	328
Total	111	591	702	111	591	702

$$\text{Average death rate } P = \frac{111}{702} = 0,1581$$

$$\text{Average non-death rate } Q = \frac{591}{702} = 0,8419$$

$$\text{Degree of Freedom} = 4-2-1 = 1$$

$$\text{Expected Frequency} = \frac{\text{Column Total} \times \text{Row Total}}{\text{Grand Total}}$$

$$\begin{aligned} X^2 &= \frac{(71-59,14)^2}{59,14} + \frac{(40-51,86)^2}{51,86} + \frac{(303-314,86)^2}{314,86} + \frac{(288-276,14)^2}{276,14} \\ X^2 &= 6,05 \end{aligned}$$

From X^2 tables with 1 degree of freedom, 5% level of significance

$$X^2 > X^2(0,05) = 3,84$$

Result: Accept H_1 at the 5% significance level.

At a 5 percent level of significance and 1 degree of freedom, the proportion of infant or child death for the Amatola Basin women was greater than that of the Guguletu women. This may imply that the maternal risk factors that render a (great) risk of infant death may be higher in the rural than in urban areas.

The ages at death for these children are shown in table 13:-

TABLE 13

AGES OF RESPONDENTS' CHILDREN AT DEATH OR AT THE TIME OF THE INTERVIEW

AGES	RURAL		URBAN	
	Number of children ALIVE DEAD		Number of children ALIVE DEAD	
0-11 MONTHS	38	66(93%)	24	36 (90%)
1-5 YEARS	75	5(7%)	84	3(7.5%)
5-10 YEARS	81	-	67	-
10-15 YEARS	66	-	58	-
15+ YEARS	43	-	55	1(2.5%)
TOTAL	303	71(100%)	288	40(100%)

From table 13, most infants died before they were a year old. Few died after a year from birth. According to the second Carnegie Inquiry (In: Levy, 1984:49-53), the poverty in the Cape Province is among the worst in the country. There are increasing rates of poverty and infant mortality amongst Blacks. For example, in some parts of Ciskei, children under the age of 14 are underweight and

the situation has risen to 60 or 70 percent or more. However, in Cape Town, the figures have shown a great improvement in recent years, probably because of better socio-economic conditions.

5.2 AVERAGE NUMBER OF CHILDREN BY AREA OF RESIDENCE

From the research, the number of children rose with the ages of the respondents. The older respondents, as expected, had more children than the younger respondents. However, the numbers were greater amongst the rural as compared to the urban respondents.

These total numbers of children increased at an earlier age amongst rural females as compared to their urban female counterparts. By the age of 29, Amatola women had as many as up to six children against a maximum (total) of three children amongst Guguletu women (as shown in table 14). This may have been due to early marriages observed in the rural areas. These situations are shown in table 14.

As can be seen in table 14, the fourteen year old woman had no children. The 15-19 years old respondents had a maximum of one child, none of all the respondents in this age group had more than one child. Of the respondents in the 30-34 years category, a maximum of five children for Guguletu women as compared to nine (or more) for the Amatola Basin women was obtained. The total number of children (for all respondents) increased (as it is to be expected) with age. This situation is illustrated in figure 4.

TABLE 14

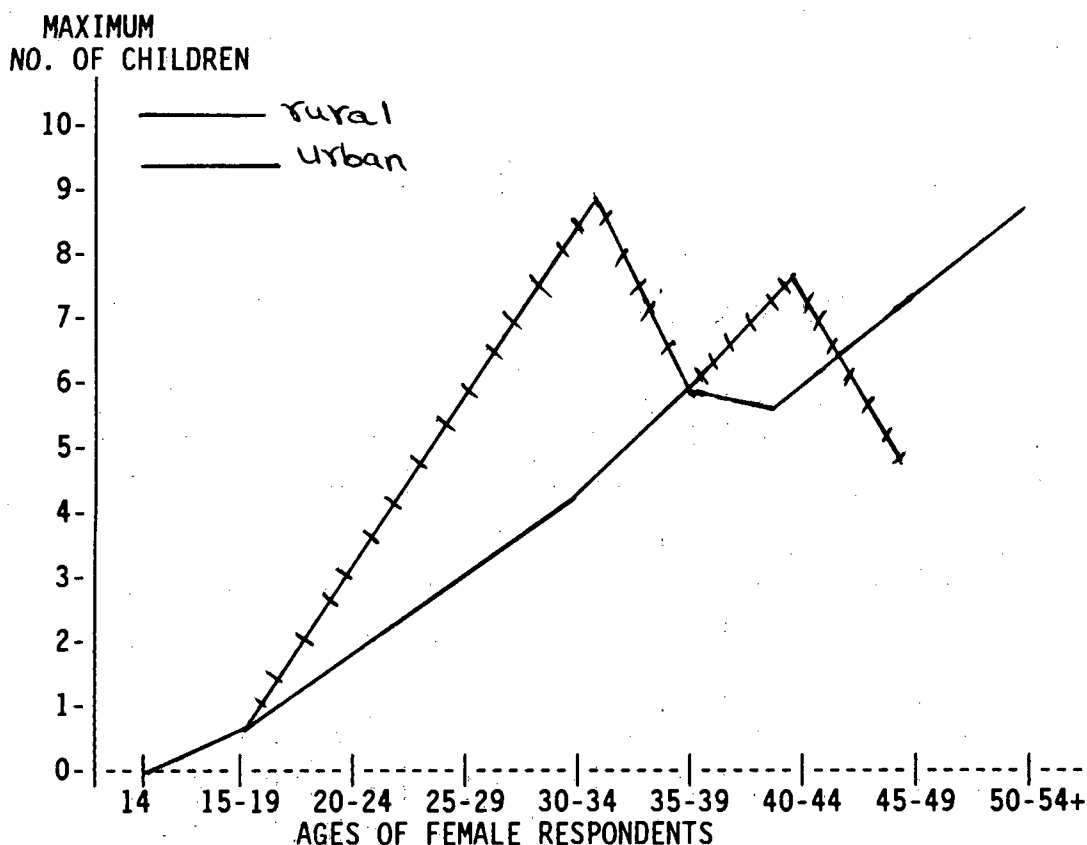
NUMBER OF CHILDREN BY THE AGES OF FEMALE RESPONDENTS

RESPONDENTS		NUMBER OF CHILDREN										TOTAL
AGES	AREA	0	1	2	3	4	5	6	7	8	9+	
14	U	1	-	-	-	-	-	-	-	-	-	1
	R	-	-	-	-	-	-	-	-	-	-	-
15-19	U	11	7	-	-	-	-	-	-	-	-	18
	R	25	6	-	-	-	-	-	-	-	-	31
20-24	U	11	27	4	1	-	-	-	-	-	-	43
	R	8	16	8	2	-	-	-	-	-	-	34
25-29	U	2	11	11	5	-	-	-	-	-	-	29
	R	-	3	13	8	2	-	1	-	-	-	27
30-34	U	-	3	10	8	1	1	-	-	-	-	23
	R	-	3	3	5	10	3	2	-	-	1	27
35-39	U	-	2	4	4	3	4	1	1	-	-	19
	R	-	1	1	4	3	4	2	1	-	-	16
40-44	U	-	2	1	-	1	5	2	-	-	-	11
	R	-	1	1	1	1	5	-	3	1	-	13
45-49	U	-	1	-	2	-	-	1	-	-	-	4
	R	-	-	-	1	-	-	1	-	-	-	2
50-54	U	-	1	-	-	-	-	-	-	-	1	2
	R	-	-	-	-	-	-	-	-	-	-	-
TOTAL	U	25	54	30	20	5	10	4	1	-	1	=150
	R	33	30	26	21	16	12	6	4	1	1	=150

SYMBOLS: U-Urban R-Rural

FIGURE 4

GRAPHICAL ILLUSTRATION OF THE NUMBER OF CHILDREN BY THE AGES OF FEMALE RESPONDENTS

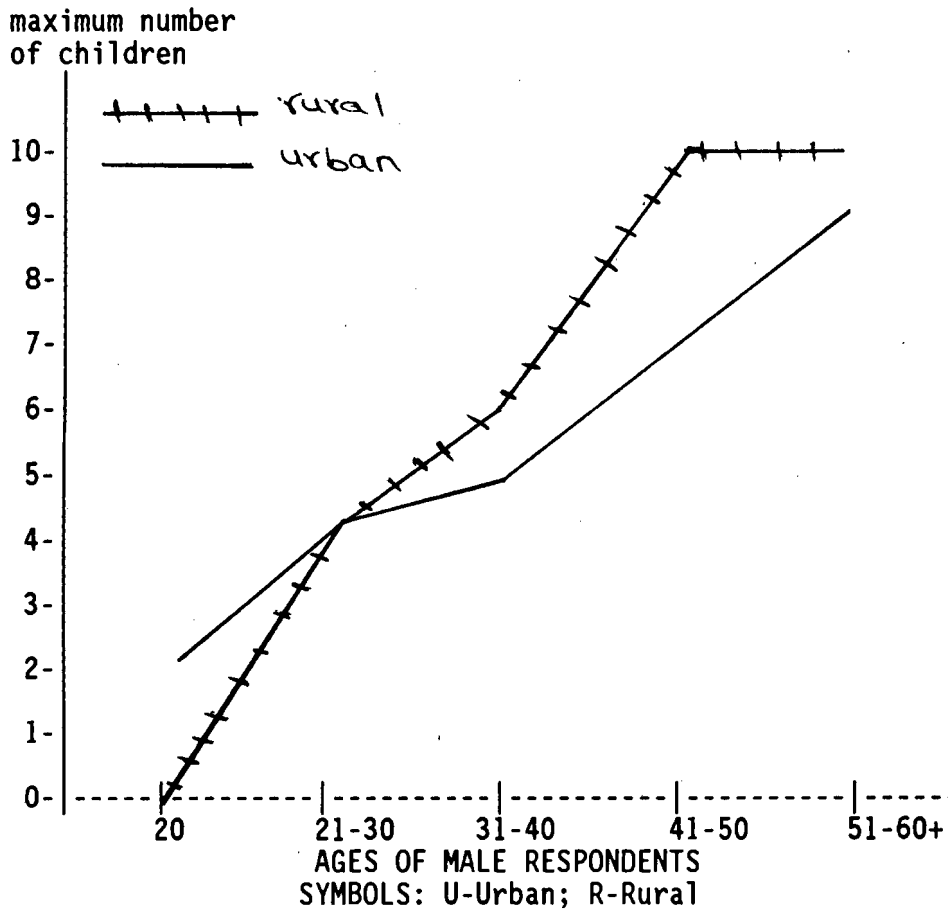


For males, the same trend was observed. Their total number of children, as expected, rose with their ages. The older men had more children and greater total numbers than the younger men.

The Guguletu men, who were 20 years or less, had up to two children as compared to a maximum of one child amongst the Amatola Basin men in the same age group. Of the men in the 31-40 years age group, Guguletu men had up to five children as compared to six for

FIGURE 5

GRAPHICAL ILLUSTRATION OF THE NUMBER OF CHILDREN BY THE AGES OF
THE MALE RESPONDENTS



Chi-square tests were administered to test the association between number of children and age. The SAS system's PROC FREQ program was used to analyse data. The FREQ procedure produces one-way to n-way frequency and crosstabulation tables. For n-way tables, PROC FREQ does stratified analysis, computing statistics within as well as across strata. Phi coefficient was used to measure the degree of association. Values of phi close to zero indicated little if any

association, whereas values close to unity indicated almost perfect predictability. Any value less than 0,30 or 0,35 may be taken to indicate no more than trivial association (Fleiss, 1981; SAS User's Guide, 1985).

When a test was administered for number of children and age, the association was perfectly predictable. For urban females alone, at 10 degrees of freedom, and 0,001% level of significance, the correlation coefficient was $\phi = 0,89$. For rural females alone, at 10 degrees of freedom, and 0,001% level of significance, ϕ was = 0,94. For all women combined together, at 10 degrees of freedom and 0,001% level of significance, ϕ was = 0,86. These results have not only shown statistical significance but they also shown a perfectly predictable association between age and number of children. From these findings, it seems area of residence (urban and/or rural) does not affect the association between the number of children and the ages of females.

The average number of children for women has been found to be 2,3 in Amatola Basin and 1,9 in Guguletu. For men, the average number of children was 1,3 Amatola Basin and 1,5 Guguletu (see table 39). It should be noted that most Amatola Basin men were of school-going age. This might be one of the reasons for the relatively lower average number of children for Amatola Basin men as compared to Guguletu men.

NB.

Another chi-square test was administered to test the association between area of residence and number of children. Columns and rows were collapsed so that cells could have counts not less than 5 for a chi-square test to be a valid test.

For females alone, there were 3 rows (less than 2 children, between two and four children, greater than four children) and two columns (rural and urban females). At 2 degrees of freedom and 0,001% level of significance, the correlation coefficient or phi value was 0,37.

This means there is an association between area of residence and number of children. However, the degree of association is trivial. When the percentages in the cells were compared, a pattern emerged from the collapsed columns and rows. More urban (75,47%) than rural females (24,53%) had less than two children. And more rural (73,68%) than urban (26,32%) females had more than four children. NB

When the test was administered for males and females (together) by area of residence, at the 0,001% level of significance and 7 degrees of freedom, the association was trivial ($\phi = 2,56$). However, as with females, the urban respondents' percentages for less than four children were high (up to 67,86%), and then followed a decreasing trend (up to 35,29%). Amongst the rural respondents, their trend was the opposite. Their percentages for less than four children were low (from 32,14%) and later increased after four children (up to 66,67%).

Although the statistical test for males and females by area of residence ($\phi=2,56$) showed trivial association (partly because the sample size was small), the chi-square tests and percentages have shown (in this case) that urban respondents had less children than the rural respondents.

5.3 BIRTH HISTORY

For birth history the number of times the women had conceived was recorded. For both (urban and rural) females, over 50 percent of the respondents were in the 15-44 years range. Most of them had had at least one pregnancy. Only 22 percent (rural) and 16,7 percent (urban) of all the female respondents had never had a child before. Most urban females had had at least a child or had been pregnant before. Amongst the rural females, most of them had had at least two children or pregnancies- about ten percent had had at least four pregnancies. For all female respondents, more than 50 percent have had at least one pregnancy.

At the time of the interview, 13 percent Amatola Basin and 4 percent Guguletu female respondents were pregnant. The null hypothesis that an equal proportion of Amatola Basin and Guguletu women was pregnant was tested using a chi-square test (see p.76). It was concluded at the 5% level of significance that the proportion of pregnancy in the Amatola Basin (at the time of the interview) was higher than that of the Guguletu female respondents. In table 13, we saw that the Amatola Basin women

lost more children than the Guguletu women. The greater incidence of pregnancy amongst the former, may be a desire for more children partly to compensate for this loss. According to Kemp (1984:4), "this marked difference between country and city may be due to better educational and work opportunities in the city as well as greater acceptance of contraception."

The total number of pregnancies that the respondents had (in table 16), as expected, rose with age. 7 out of 19 (37% urban) and 6 out of 31 (19% rural) females in the 14-19 years category had had at least one pregnancy. Of those in the 20-24 years category, the urban respondents had had up to 3 pregnancies. There was however, one woman amongst the rural respondents in this age category, who had had 5 pregnancies. In the 30-34 years category, the urban respondents had up to 7 pregnancies as compared to 9 or more pregnancies amongst the rural females. Of those in the 35-39 years category, urban women had up to 7 pregnancies as compared to a maximum of 8 amongst the rural women. These situations are clearly shown in table 16:-

TABLE 16

BIRTH HISTORY OF THE FEMALE RESPONDENTS

NUMBER OF PREGNANCIES		ages of female respondents								TOTAL
		14	15-19	20-24	25-29	30-34	35-39	40-44	45+	
0	U	1	11	11	2	-	-	-	-	25
	R	-	25	8	-	-	-	-	-	33
1	U	-	7	26	9	2	1	1	2	48
	R	-	6	16	2	2	1	1	-	28
2	U	-	-	4	12	9	5	2	-	32
	R	-	-	8	12	3	1	1	-	25
3	U	-	-	2	6	9	3	-	-	20
	R	-	-	1	7	4	2	1	1	16
4	U	-	-	-	-	1	3	1	2	7
	R	-	-	-	5	9	4	-	-	18
5	U	-	-	-	-	1	4	1	-	6
	R	-	-	1	-	5	3	5	-	14
6	U	-	-	-	-	-	1	3	-	4
	R	-	-	-	1	3	4	1	1	10
7	U	-	-	-	-	1	2	3	-	6
	R	-	-	-	-	-	1	2	-	3
8	U	-	-	-	-	-	-	-	1	1
	R	-	-	-	-	-	2	-	-	2
9+	U	-	-	-	-	-	-	-	1	1
	R	-	-	-	-	1	-	-	-	1
TOTAL	U	1	18	43	29	23	19	11	6	=150
	R	-	31	34	27	27	16	13	2	=150

SYMBOLS U-Urban R-Rural

According to Kemp (1984), the percentage of births of high order to Black women over 35 years old in the rural areas is disturbing. This may be because they have been slow to accept contraception and are less motivated to accept the small family norm. But the main reason for higher order births may be replacement of earlier infant deaths.

5.4 IDEAL NUMBER OF CHILDREN

The various factors that have contributed to the decline in mortality are the desire to reduce deaths and thereby extend life. Birth rates are determined by individual decisions, and such decisions will be influenced by a variety of interrelated economic, social and religious factors. Therefore, in order to understand why fertility rates have changed, it is necessary to examine those factors that have influenced people's attitudes to family size.

From table 17, female respondents seemed to wish for more children than the ones they presently had. It was interesting to observe a higher ideal number amongst women in the 35-39 years category in Guguletu than in the Amatola Basin. They (urban women) wished for an average of 4,5 children as compared to an average of 4,1 children amongst the Amatola Basin women. There were few women who wished for one child.

Amongst the women in the 14-19 years categorier, their mean ideal numbers of children were almost the same (3,4 urban; 3,2 rural). The desired family size, especially when expressed by young respondents is not a very good predictor of actual family size because, as time goes, the stated desired size may alter. (At an

international level) The desire not to have more children at any given point in time, should constitute a strong incentive to resort to contraception, regardless of the size of the family, according to the United Nations (1980a).

From table 17, there were 60,7 percent (rural) as compared to 46,9 percent (urban) females who wished for five or more children. The null hypothesis that an equal percentage of the Amatola Basin and Guguletu women wanted 5 or more children was tested using a chi-square test (see p.76). It was concluded at the 10% level of significance ($\chi^2 = 3,83$), that a higher percentage of the Amatola Basin women wished for 5 or more children than the Guguletu women.

From the research, younger respondents wished for fewer children as compared to the older respondents. In table 17, the average mean ideal number of children for females 14-19 years was 2,86. Amongst females in the 20-29 years categories, their mean was 3,65. Of the women in the 30-44 years categories, their mean was 4,42. For women in the 45-54+ categories, their mean was 6. The older still belong to the rural culture whilst the younger are more urbanised and westernised- thus illustrating the effect of urbanisation in decreasing family size. This means that, as the younger respondents are increasingly urbanised, they will further wish for fewer children because of their exposure to the urbanised way of life in the urban areas.

Table 17

IDEAL NUMBERS OF CHILDREN FOR FEMALE RESPONDENTS BY AGE AND

AREA OF RESIDENCE

RESPONDENT		Ideal number of children											TOTAL	MEAN
AGE	AREA	0	1	2	3	4	5	6	7	8	9	10+		
14	U	-	-	1	-	-	-	-	-	-	-	-	1	2
	R	-	-	-	-	-	-	-	-	-	-	-	-	-
15-19	U	-	-	4	5	6	2	-	-	-	-	-	17	3,4
	R	1	-	5	13	9	3	-	-	-	-	-	31	3,2
20-24	U	-	-	14	19	9	-	1	-	-	-	-	43	3,0
	R	-	1	3	11	14	4	1	-	-	-	-	34	3,6
25-29	U	-	-	5	9	13	1	1	-	-	-	-	29	3,5
	R	-	-	1	8	10	4	2	-	-	-	2	27	4,5
30-34	U	-	-	5	7	7	1	2	-	1	-	-	23	3,7
	R	-	2	2	5	5	4	6	-	2	1	-	27	4,5
35-39	U	-	-	2	4	6	3	2	-	1	-	1	19	4,5
	R	-	2	-	1	7	4	2	-	-	-	-	16	4,1
40-44	U	-	1	1	1	1	4	2	-	1	-	-	11	4,6
	R	-	-	-	3	5	1	-	2	1	-	1	13	5,1
45-49	U	-	-	-	-	2	-	1	-	1	-	-	4	5,5
	R	-	-	-	-	1	-	-	-	1	-	-	2	6,0
50-54+	U	-	-	-	-	1	-	-	-	-	1	-	2	6,5
	R	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	U	-	1	32	45	45	11	9	-	4	1	1	=149	4,1
	R	1	5	11	41	51	20	11	2	4	1	3	=150	4,4

for the urban sample- 1 respondent is missing

SYMBOLS: U- Urban R- Rural

Amongst women in the 25-29 years category, 14 out of 29 (48 percent) urban and 9 out of 27 (33 percent) rural females wished for fewer than four children. The remaining majority (52% urban and 67% rural women) desired four or more children with a higher percentage amongst the rural respondents. Of the women in the

40-44 category, 18 percent urban and zero percent rural females wished for fewer than three children- instead the rural women wished for up to ten (or more) children! Their urban women counterparts wished for a maximum of eight children.

TABLE 18

IDEAL NUMBER OF CHILDREN FOR THE MALE RESPONDENTS

RESPONDENTS		ideal number of children											TOTAL	MEAN
AGE	AREA	0	1	2	3	4	5	6	7	8	9	10+		
0-20	U	-	-	3	9	8	3	2	1	1	-	2	29	4,4
	R	-	1	12	19	12	8	4	2	2	-	1	61	3,8
21-30	U	-	-	10	12	28	9	5	-	2	1	4	71	4,3
	R	-	-	5	6	15	5	4	1	-	-	2	38	4,3
31-40	U	1	-	8	9	13	1	2	1	1	-	-	36	3,5
	R	-	1	1	6	6	2	1	-	-	-	2	19	4,3
41-50	U	-	-	-	-	2	2	1	-	-	-	1	6	5,7
	R	-	-	3	1	7	3	4	2	1	1	1	23	5,1
51-60+	U	-	-	-	-	2	1	1	1	-	1	2	8	6,9
	R	-	1	-	-	1	1	1	1	-	-	1	6	5,3
TOTAL	U	1	-	21	30	53	16	11	3	4	2	9	=150	5,0
	R	-	3	21	32	41	19	14	6	3	1	7	=147	4,6

for rural sample- 3 respondents are missing
(2 in the 31-40 years category; 1 in the 41-50 years category)
SYMBOLS U- Urban R- Rural

Amongst men, 34 percent (rural) and 30 percent (urban) wished for five or more children. A chi-square test similar to that of women was done amongst men. The null hypothesis that an equal percentage of all men (from the Amatola Basin and Guguletu) wished for 5 or more children was tested. At a 5 percent level of significance ($D^2 = 0,368$), the null hypothesis was accepted.

5.5 CHILD SEX PREFERENCE

Interesting results were obtained from questions about the sexes of the ideal number of children that each respondent preferred. These were responses from respondents who had had a child before.

Looking at table 19, the ideal sexes were as follows:-

TABLE 19

AVERAGES OF SEX PREFERENCES AND THE AGES OF THE RESPONDENTS

		SEX PREFERENCE		AVERAGE IDEAL NUMBER	AVERAGE AGE
		BOY	GIRL		
MEN	U	2.5	2.0	4.5	29
	R	2.4	2.0	4.4	28
WOMEN	U	1.8	1.8	3.6	28
	R	2.1	2.0	4.1	27

SYMBOLS:U-Urban; R-Rural

From the table above, the urban females desired for 3,6 children as compared to an average of 4,1 by the rural females. Amongst rural and urban men, the desire for children was not different. It seems their (men) desires were not affected by the area of residence. In the African custom, children are wealth (Lotter & van Tonder, 1976). The results shown above suggest that men are to a greater extent clinging to this custom than women.

Most of the respondents (from both areas) desired four or more children. They wished for a balanced sex distribution- about two boys and two girls. Of the males who opted for odd numbers (e.g. 3 children), they either wished for two boys and a girl or three boys as their ideal number of children. Women seemed to desire for an equal number of girls as boys. However, in general, the respondents had a balanced sex preference. This is why those who only had either of the sexes (i.e. boys or girls only) were 'trying' for the other sex. With some, even after they had reached their ideal numbers, they still wanted another child for such reasons.

It was interesting to note that, whilst the Guguletu women had an average of 1,89 children, they still wanted an additional number of 1,67 children. Amongst the Amatola Basin women, who had an average of 2,33 children, they still wanted an additional number of 2,09 children. The null hypothesis that the additional ideal number of children for Amatola Basin and Guguletu female respondents was the same was tested using a chi-square test (see p.76). It was concluded at a 5% level of significance ($D^2 = 0.0002035$) that the additional ideal numbers for all females was the same. However, the total ideal number of children for Amatola Basin women (see table 17) was slightly greater than that of the Guguletu women.

Almost all men (see table 20) wanted their first child to be a boy. In the African custom the first child, ideally a boy, is the heir in the family. This is one of the reasons why men wished for their

first children to be boys. Those who had never had a child before, were also keen to have a boy as their first child. Table 20 shows their preferences:-

TABLE 20

FIRST CHILD SEX PREFERENCE

		BOY	GIRL	EITHER	Ttl No. of RESPONDENTS
MEN	U	43(88%)	5	1	49
	R	68(81%)	7	9	84
WOMEN	U	11(44%)	11	3	25
	R	18(51%)	17	-	35

SYMBOLS: U-Urban; R-Rural

A high percentage of men (without children) wished their first child to be a boy. From the research, men did state other reasons too, why they preferred boys to girls. They claimed that educating a girl is a waste of time and money since she will get married and leave home, more often falling pregnant (whilst at school), and getting engaged before "paying back" her parents all the expenses which were incurred on her. Contrary to this, men also said they were encouraging their sons to marry better educated women so as to 'gain and be secured' from her income.

From these findings, it emerges that the ideal number of 2,1 children has not as yet been accepted by the Africans in these two areas.

5.6 INCOME

The income levels for all respondents from their places of employment were recorded. These were income levels from their first jobs. Income levels from second jobs were derived from the amount earned by those who had an additional job to supplement income from their first jobs (e.g. shebeen).

From the research, most Amatola Basin respondents earned below R100 per month, from their first, formal jobs. Of the 70 economically active Amatola Basin females, 64 (91%) earned below R100. In Guguletu, it was only 18 of the 86 (21%) economically active females earned below R100. Amongst men, of the 69 economically active Amatola Basin men, 44 (64%) earned below R100 as compared to 1 out of 107 (1%) Guguletu men. The different percentages and categories are shown in table 21:-

TABLE 21

INCOME LEVELS - (First Main Job)

MONTHLY INCOME IN RANDS	FEMALES		MALES	
	AMATOLA	GUGULETU	AMATOLA	GUGULETU
0 - 100	64 (43%)	18 (12%)	44 (29%)	1 (1%)
101- 250	5 (3%)	51 (34%)	15 (10%)	27 (18%)
251- 500	1 (1%)	12 (8%)	10 (7%)	57 (38%)
501- 750	-	3 (2%)	-	15 (10%)
751- 1000	-	-	-	3 (2%)
1000+	-	2 (1%)	-	4 (2%)
NOT EARNING	80 (53%)	64 (43%)	81 (54%)	43 (29%)
TOTAL	150 (100%)	150 (100%)	150 (100%)	150 (100%)

These income levels should be looked at against the time spent at work :-

TABLE 22
HOURS SPENT AT WORK

	FEMALES		MALES	
	AMATOLA	GUGULETU	AMATOLA	GUGULETU
	NO.	NO.	NO.	NO.
Full Time	54 (77%)	80(93%)	68(99%)	103(96%)
Part time	16 (23%)	6 (7%)	1 (1%)	4 (4%)
TOTAL	70(100%)	86(100%)	69(100%)	107(100%)

Amongst females, there were more Amatola Basin women who earned R100 or less, per month, as compared to Guguletu women. A greater percentage of the Guguletu women than that of the Amatola Basin women earned up to R250. Amongst men, only 1% of the Guguletu men earned R100 or less. At the Amatola Basin, 29% of the men were in the same category. Most of the men in Guguletu earned more than R100 from their first jobs. None of the sampled Amatola Basin men earned more than R500 per month, whilst in Guguletu there were male respondents who earned more than twice this amount. Those recorded not earning were those who had no jobs (see table 25 below).

Wage discrimination against women was clearly observed, especially amongst the rural respondents. This was ascertained because the majority worked at the same single place of employment,(i.e., from

their first jobs), but earned different wages for identical jobs. Amatola Basin women, on average, earned R62,49 as compared to an average wage of R132,41 amongst Amatola Basin men. In Guguletu, on average, men earned R414,34 as compared to an average of R199,16 for their female counterparts (see table 25). These figures compare favourably with those by Patel (1984) for Guguletu. He found an average of R438,11 for men, and R226,05 for women. It is noted with interest that, women from both areas were, however, found just as literate (i.e. able to read a newspaper) as their male counterparts at these levels of income.

Guguletu respondents earned more than their Amatola counterparts. This is doubtless the main reason why more Amatola Basin men, as compared to Guguletu men are involved in the informal sector or have a second job as shown in table 23:-

TABLE 23

INCOME LEVELS - (Second job)

MONTHLY INCOME IN Rands	FEMALES		MALES	
	AMATOLA	GUGULETU	AMATOLA	GUGULETU
0 - 100	-	-	34 (23%)	2 (1%)
101 - 250	-	1 (,67%)	-	-
251 - 500	-	1 (,67%)	-	1 (1%)
501 - 750	-	-	-	-
751 - 1000	-	-	-	-
1000+	-	1 (,66%)	-	-
Not earning	150 (100%)	147 (98%)	116 (77%)	147 (98%)
TOTAL	150 (100%)	150 (100%)	150 (100%)	150 (100%)

Most of the Amatola Basin females who were not amongst the majority that was 'picking up' stones from the river in order to make a wall for the grazing area (i.e. working for the Government), were sewing and knitting. They regarded this as their first job since it was their major and only source of income. They did this work collectively with the help of a social worker from Fort Hare university. She often came and sold their finished goods elsewhere outside the Basin. In Guguletu, the respondent who earned more than a thousand rands per month from her second job had an illegal (drug running) job, one of the means by which many African people survive.

The unemployment rate was higher in the rural than in the urban area (see table 26 below). Most people worked full-time, meaning that they may be doing part-time work after hours and/or over the weekends.

From the sample, the urban respondents earned better wages from their first job as compared to the rural respondents (see table 24). They were better educated than their rural counterparts (see table 36). There were 43% and 29% Amatola females and males respectively who earned in the range of R0-100 as compared to 12% and 0,7% Guguletu females and males. These women in the Amatola Basin had up to 9 children as compared to 7 in Guguletu. In the income bracket, R251-500, Guguletu females had even fewer children than those of lesser income. Their numbers of children decreased with an increase/

/ in their levels of income from their first jobs. This shows a negative correlation between income and the number of children. This correlation is even more pronounced when the area of residence (urban/rural) is taken into consideration.

A chi-square test was used to test the association between income (from the first job) and area of residence. At 0,001% level of significance and 3 degrees of freedom, the association was perfectly predictable ($\phi=0,70$). When the association between income (from the first job) and sex were tested, the association was not as strong as that of income and area of residence. Amongst urban respondents, at 3 degrees of freedom and 0.001% level of significance, there was a strong association between sex (males and/or females) and income ($\phi=0,56$). For rural respondents, at 2 degrees of freedom and 0,001% level of significance, the association was trivial ($\phi=0,34$). This is because most rural respondents worked at a single place of employment earning similar income.

In another chi-square test used to test the association between income (from the first job) and number of children, the association was found trivial. The rows and columns were collapsed to avoid counts less than 5 in each cell. However, because of the sample size (139 rural respondents; 193 urban respondents), there were cells with less than 5 counts. At 10 degrees of freedom and 0,001% level of significance, the test was statistically significant with a correlation coefficient $\phi= 0,31$.

When a test was used between urban and rural respondents (separately) and income, the results were no better. At 6 degrees of freedom and 0,009% level of significance, the degree of association for urban respondents ($\phi=0,30$) was little. For rural respondents, at 4 degrees of freedom and 0,108% level of significance, the association ($\phi=0,23$) was very little. When the test was done by sex (males and/or females), the results showed some improvement. For males, at 6 degrees of freedom and 0,012% level of significance, the association was trivial ($\phi=0,31$). Amongst females, at 6 degrees of freedom and 0,002% level of significance, the association was not very strong ($\phi=0,37$).

In table 24, the income levels were not per household. These income levels were for each individual respondent.

As can be seen from their average wages (in table 25), the urban respondents earned over three times the amount that the rural respondents earned. They were engaged in activities to generate more income to supplement their wages.

TABLE 24

NUMBER OF CHILDREN (LIVE BIRTHS) BY INCOME BRACKET OF MOTHER OR
FATHER (EXCLUDING THOSE NOT WORKING)

RESPONDENTS INCOME BRACKET	AREA	number of children											TOTAL
		0	1	2	3	4	5	6	7	8	9	10+	
0-100	F(U)	1	4	6	6	-	-	-	1	-	-	-	18
	F(R)	2	8	3	14	10	18	4	3	1	1	-	64
	M(U)	-	-	-	-	-	-	-	-	1	-	-	1
	M(R)	18	2	6	3	8	2	3	-	-	-	2	44
101-250	F(U)	6	20	10	7	2	4	1	-	-	1	-	51
	F(R)	-	3	-	-	1	1	-	-	-	-	-	5
	M(U)	9	6	6	3	2	-	-	-	-	1	-	27
	M(R)	5	2	7	-	1	-	-	-	-	-	-	15
251-500	F(U)	2	4	3	1	-	1	1	-	-	-	-	12
	F(R)	-	-	1	-	-	-	-	-	-	-	-	1
	M(U)	10	17	6	5	4	12	1	1	1	-	-	57
	M(R)	1	3	2	1	1	-	-	1	1	-	-	10
501-750	F(U)	-	1	-	1	-	1	-	-	-	-	-	3
	F(R)	-	-	-	-	-	-	-	-	-	-	-	-
	M(U)	2	5	4	3	1	-	-	-	-	-	-	15
	M(R)	-	-	-	-	-	-	-	-	-	-	-	-
751-1000	F(U)	-	-	-	-	-	-	-	-	-	-	-	-
	F(R)	-	-	-	-	-	-	-	-	-	-	-	-
	M(U)	1	2	-	-	-	-	-	-	-	-	-	3
	M(R)	-	-	-	-	-	-	-	-	-	-	-	-
1000+	F(U)	1	1	-	-	-	-	-	-	-	-	-	2
	F(R)	-	-	-	-	-	-	-	-	-	-	-	-
	M(U)	-	1	2	-	1	-	-	-	-	-	-	4
	M(R)	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	F(U)	10	30	19	15	2	6	2	1	-	1	-	= 86
	F(R)	2	21	4	14	11	9	4	3	1	1	-	= 70
	M(U)	22	31	18	11	8	12	1	1	2	1	-	=107
	M(R)	24	7	15	4	10	2	3	1	1	-	2	= 69

SYMBOLS: U-Urban; R-Rural; F-Female; M-Male

TABLE 25

AVERAGES OF THE NUMBER OF CHILDREN AND MONTHLY INCOME

	FIRST JOB	SECOND JOB	NUMBER OF CHILDREN
GUGULETU MEN	R 414,34	R 183,33	1,5
AMATOLA MEN	R 132,41	R 005,35	1,3
GUGULETU WOMEN	R 199,16	R 275,00	1,9
AMATOLA WOMEN	R 62,49	NIL	2,3

A large number of people, especially in the Amatola Basin, was seeking employment. Of the number that were not looking for work, the majority were still at school. It was interesting to note that there were women at the Basin who claimed to be doing domestic duties as a reason for not seeking employment. These women depended on their families, especially their sons, for the provision of goods and services in the field of production, consumption, use of leisure, care in times of sickness and old age and many other factors which are managed in modern communities by institutions other than those based on kinship structures (Freedman in Lotter & van Tonder, 1976). Table 26 illustrates this:-

TABLE 26

ECONOMIC STATUS

	EMPLOYED	SELF-EMPLOYED	LOOKING FOR WORK	NOT LOOKING FOR WORK
MEN(U)	102(68%)	4(3%)	20(13%)	24(16%) =(100%)
MEN(R)	68(45%)	1(1%)	30(20%)	51(34%) =(100%)
WOMEN(U)	84(56%)	4(3%)	29(19%)	33(22%) =(100%)
WOMEN(R)	70(47%)	0(-%)	36(24%)	44(29%) =(100%)

Of those employed, a great number of the Guguletu males were in supervisory positions. Many females from the urban sample were doing domestic work. However, almost all of the rural respondents worked at the same single place of employment doing the same kind of job. All respondents were classified under these sectors :-

TABLE 27

CLASSIFICATION BY OCCUPATION

		AGRI- CULTURE	SUPER- VISOR/ COMMERCE	TRADE	PUBLIC ADMIN	DOMES- TIC	OTHER	TOTAL
MEN	(U)	2(2%)	35(33%)	28(26%)	21(20%)	13(12%)	7(7%)	106(100%)
	(R)	27(39%)	2(3%)	11(16%)	27(39%)	2(3%)	-	69(100%)
WOMEN	(U)	-	12(14%)	-	13(15%)	52(59%)	11(12%)	88(100%)
	(R)	62(89%)	-	-	5(7%)	3(4%)	-	70(100%)

The author has used the occupational classification as according to the one used by Patel (1984) for Guguletu residents.

In table 27, the rural respondents in the public administration sector, were 'picking up stones ' for building a grazing wall. These were recorded as government workers because they regarded themselves as such, since they were paid by the government. Amongst the urban respondents, those who worked for the government (public administration) were in various sectors, for example, teaching. A high percentage of respondents from the Amatola Basin were in the agricultural sector. The classification for 'others' does not include the informal sector jobs.

People had other means of improving their well being. This was through some form of a savings club, (called UMGALELO in Xhosa). These organisations differed in membership and in the amounts contributed by members. This situation is shown in table 28:-

TABLE 28
SAVINGS CLUBS MEMBERSHIP AND CONTRIBUTIONS

CONTRIBUTION IN RANDS/MONTH	0 - 50	51-100	101-250	251-500	501+	TOTAL No.OF RESPONDENTS BELONGING TO SAVINGS CLUBS
MEN (U)	5(23%)	7(32%)	9(41%)	1(4%)	-	22(100%)
MEN (R)	10(100%)	-	-	-	-	10(100%)
WOMEN (U)	18(49%)	15(41%)	4(10%)	-	-	37(100%)
WOMEN (R)	19(100%)	-	-	-	-	19(100%)

In the urban areas savings clubs were more popular and members contributed more than those in the rural areas.

The migrant workers from Amatola Basin seemed to remit money scarcely or only when it was needed for urgent matters (i.e. sick member of the family, death, etc.). Otherwise they brought "lump" sums of money and clothing with them for the whole family during their holidays or when on leave. These women at the Amatola Basin regarded this as a status symbol that their men would come and buy them durable goods and grocery in bulk (12,5 kg sugar, 50kg flour, etc.). These men derived 'pride' by being able to afford such

things when they were at home. This may be a reason why some of them were in savings clubs at their places of work which was a means of accumulating money and getting it back when returning home.

The percentages of membership of savings clubs was lower in the rural than in the urban areas. This may be due to the fact that many rural respondents were being supported by someone else, that is, they were financially dependent on others. This situation is shown in table 29:-

TABLE 29

NUMBER OF RESPONDENTS SUPPORTED (by other income-earners)

		Respondents	Percentage
MEN	(U)	52	(35%)
	(R)	111	(74%)
WOMEN	(U)	117	(78%)
	(R)	134	(89%)

Most urban women who were supported, obtained support from their lovers. Their lovers mostly gave them money and occasionally bought them clothes. This is why the number of urban females who were supported is higher than the number of the rest of the respondents receiving support. However, this kind of support (money) depended greatly upon the man. At times the men would not give these women anything. In table 30, the 12 classifications of support are shown. Percentages could not be calculated because of the overlap in the support obtained.

TABLE 30DISTRIBUTION OF RESPONDENTS BY SUPPORTERS

SUPPORTER	RESPONDENT			
	MEN (U)	MEN (R)	WOMEN (U)	WOMEN (R)
FATHER	25	70	34	22
MOTHER	30	94	35	39
SON	0	0	2	0
DAUGHTER	0	0	4	0
SISTER	2	2	2	3
BROTHER	2	4	2	4
WIFE/HUSBAND	1	0	40	64
IN-LAWS	0	0	1	1
GRANDCHILD	0	0	0	0
OTHER RELATIVE	4	1	2	3
LOVER	4	1	35	16
NON-RELATIVE	2	1	3	0

Totals from the above table are more than the number of the respondents who claimed to be supported. This is so because some of the respondents were supported by more than one of the twelve given possible supporters. Most of the respondents claimed to be supported by both parents. By non-relative was meant anyone other than the next-of-kin, for example, government pension, disability grant, etc. Whilst a greater percentage of the rural females was dependent on their husbands, the urban females (who were mostly unmarried) were dependent on their parents, lovers and husbands. Interesting findings were obtained amongst men. More rural men depended on their parents than urban men. This may be due to the extended families found in the Amatola Basin. They mostly received food and lodging from their parents. Generally, most females received money as a kind of support. This is shown in table 31:-

TABLE 31
KIND OF SUPPORT RECEIVED

	MEN		WOMEN	
	URBAN	RURAL	URBAN	RURAL
LODGING	47	106	59	10
FOOD	47	101	60	23
EDUCATION	14	47	14	28
GIFTS	0	71	12	3
MONEY	42	77	101	100

From the table above, many respondents received more than one kind of the five options for support. They lived with their parents and as a result, got free lodging and food. Support differed with each of the four groups of people. The Amatola Basin men received a greater percentage of gifts than anyone else. These were durable gifts like cows, sheep, etc. which the men could use for lobola or to accumulate their wealth.

Evidence from this section seems to show that urban respondents earned more than those from the rural area. They also had better jobs and held better positions at work than Amatola Basin respondents.

5.7 URBANISATION

From the research, 96% of the sampled Amatola Basin females had been brought up there, that is in a rural area. In Guguletu, about 74% of the female respondents were brought up there. Of the remainder, 6% were brought up in towns outside a homeland, 5% in towns in a homeland, 14% in countrysides in a homeland, and 1% in countrysides outside a homeland. Of the Guguletu females who had been brought up there, 7% had four or more children as compared to 15% of the Amatola Basin females who had been brought up at the Amatola Basin.

Amongst males, 68% Guguletu men had been brought up there as compared to 90% Amatola Basin men. The Amatola Basin men had more children than their Guguletu counterparts- 7% of them as compared to 0,6% Guguletu men had five or more children. (All) Men from both localities (urban and rural) were, on average, 29 years old.

A chi-square test was used to test the association between number of children and area of residence (see p.82-83). The association was found statistically significant and the degree of association trivial when done for all respondents (males and females together). However, the percentages also showed that urban respondents had less children than rural respondents.

5.7.1 Urbanisation and contraception

During research, 56% (urban) and 45% (rural) sampled females were currently on contraception. However, those who had ever used it before (even if they were not using it at the time of the interview) were 84% and 79%, of Guguletu and Amatola Basin females respectively. The percentages of women who were currently on contraception (as compared to the percentages of women who were ever on contraception), show a drop in the total sampled number of all women (married, divorced, single, etc.), 14-44 years old, currently on contraception as compared to those who had ever used contraceptives in the urban and rural areas. One explanation for the drop in the percentages of women currently using contraceptives is that, the sampled women included those infertile who were 45+ years old, and women cease to use contraceptives when they are no longer fertile.

What was interesting was that, at these percentages (56% urban; 45% rural) of women currently on contraception, 87% of urban and 92% of rural females had current lovers. Current lovers included migrants who only paid a visit to their partners during holidays and their annual leave. This means that women who had lovers without some means of contraceptive protection were at a risk of falling pregnant.

There were more urban than rural females using contraceptives. For the rural females, the difference in contraceptive use may be that their husbands are away most of the time.

5.7.2 Urbanisation, age structure, and marriage patterns

At the Amatola Basin most women were married traditionally. It was interesting to note that most boys from the Basin, of the ages of 15-18 years, did not have girlfriends. They were "shy" and "embarrassed" when I asked them about girlfriends. In one of the interviews the boy literally ran away to the back of the house and that interview was spoilt. Some laughed at the subject which was like a joke to them. It was only after they had left school, worked on contract or worked elsewhere that they felt "bold" and big enough to have girlfriends and to work hard to marry them. Men from both areas were almost the same in their manner of behavior. They had an equal number of partners. There were 90% Guguletu men and 93% Amatola men with up to four partners simultaneously; 6 percent Guguletu men and 6 percent Amatola Basin men with more than four partners.

A partner was defined as any woman that was a lover to any of the men. It did not matter whether they were married or unmarried. As long as they were in love with each other, they were regarded as partners. Amongst married men, the word 'partners' or 'lovers' included his wife, regular girlfriend/partner, casual girlfriend/partner (the latter are called "nyatsis").

Most men had more partners than the recorded ones. Some had as many as 7+ partners. However, their average number of partners were 1,9 for Guguletu and 1,7 for Amatola males. During interviews, they asked us the number of their partners we wanted to record. Some could not even count their total number of partners, especially their casual partners, since they were many to be recalled within the limited time during the interview. They claimed that even if they had met that woman once, they still regarded her as a girlfriend because if they had to meet again, as some have done, they will both still regard each other as lovers and 'continue from where they ended'. Men claimed to be 'doing justice' to the fact that there were far more women than men in the population. The South African Black (especially rural) male-female ratio is also confirmed by Grobbelaar (1986) who still expects females, by 2010, to continue to be present in considerably greater numbers than males (the sex ratio of a population is demographically defined as the number of males per one hundred females in a population at a particular point in time).

A great number of male respondents were not married (see table 33). However, the percentage amongst Amatola males, that is, 115 out of 150 (77%) was slightly higher than that for the urban males, that is 101 out of 150 (67%). This might be due to the fact that most men at the Amatola Basin were still at school (see table 31). These were mostly men over 20 years of age (72/101, or 71%) in Guguletu, and almost an equal number to that of men below age 20 (54/115, or 47%) in the Amatola Basin. In Guguletu many boys

from as early as at the age of 15, had at least one girlfriend (not specified if it was a sexual partner). A few of them fathered children who were now staying with their grandparents (i.e. respondent's parents) since their mothers had 'dumped' these children there. Early childbearing may have no long term impact on the well-being of very young parents, but it may impose costs on the child, child's grandparents, or on the society generally- all of whom may have to compensate in one way or another for the relative immaturity or lack of financial resources of the parents. (Du Plessis, 1975)

It was interesting to note that the fourteen year old girl in Guguletu was using some form of contraception at that early age. This may suggest that the girl was engaging in sexual intercourse. However, it is likely that a significant number of girls at that age were already using contraceptives. According to the study by Lotter & van Tonder (1976), it appeared that a slightly larger percentage of women in urban than in rural areas gave birth to their first babies when they were sixteen years or younger. Other writers (Longmore 1959; Du Plessis, 1975; Nel 1977) agree that during courtship and in affairs, full sexual intercourse invariably takes place, so that it may be generally accepted that young urban people acquire sexual experience at an early age. It is said that most men intending to get married acquire this experience to ascertain beforehand whether the woman is fertile; and the woman does allow herself to be pregnant for the same purpose.

From the research, many boys within the ages of 17-19 had at least one child. They claimed that these children were to test their fertility. Although they had not admitted (to the children's mothers) fathering these children, they did tell us that they still regarded them as their children. Over 95% of the sampled men regarded these children as theirs. Amongst Africans, children are regarded as a blessing, or a blessing from the Badimo (ancestral spirits) (Lotter and Schmidt, 1973). You cannot deny your child completely. A man only does so to avoid responsibility but most of them own up later in life when they are financially better-off than before. During interviews, some did confess that they had denied fathering these children although they knew that these children were theirs. Some men told the author that they left their women pregnant elsewhere or they had heard that these women had had their babies but they did not want to be traced by these former girlfriends. This was common amongst married men living with their families, amongst boys of school-going ages who were still financially dependent and amongst men who had stable relationships elsewhere. According to Nel (1977), a young man who later decides he no longer wishes to marry the girl by whom he had a child, will simply leave her in the lurch.

A higher percentage of Guguletu females than that of the Amatola Basin females was not married. There seem to be more "delayed marriages" amongst the urban females than the rural ones. There

were 59% Guguletu women within the ages of 14-19 who were not married. Amongst Amatola Basin females, only 44% were not married within the same age group.

Early marriages were found to be more common at the Amatola Basin than in Guguletu. Only 32% of Guguletu women as compared to 47% of those from Amatola Basin were married. Divorce was higher in Guguletu than in the Amatola Basin. One factor contributing to this is that, in the rural areas, where customs are still strongly preserved, divorce is not accepted. People would rather be separated than to be divorced which could explain why the percentages of people who were separated were slightly higher in the rural Amatola Basin area than in Guguletu!

TABLE 32

MARITAL STATUS OF FEMALES BY THEIR AGE

		ages of female respondents									
MStatus		14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54+	TOTAL
NEVER MARRIED	U	1	18	37	18	9	5	1	-	-	89
	R	-	30	23	8	4	-	1	-	-	66
MARRIED	U	-	-	6	10	12	11	9	1	-	49
	R	-	1	11	15	22	12	9	1	-	71
SEPARA- TED	U	-	-	-	1	-	2	-	1	1	5
	R	-	-	-	3	-	2	1	1	-	7
DIVOR- CED	U	-	-	-	-	2	1	-	2	-	5
	R	-	-	-	1	-	2	-	-	-	3
WIDOW	U	-	-	-	-	-	-	1	-	1	2
	R	-	-	-	-	1	-	2	-	-	3
TOTAL	U	1	18	43	29	23	19	11	4	2	150
	R	-	31	34	27	27	16	13	2	-	150

SYMBOLS: U-Urban; R-Rural

From table 32, the number of women over the age of 24 who were not married was 33 out of 89 (37%, or 22% of total urban sample) in Guguletu and 13 out of 66 (20%, or 8% of the total rural sample) in the Amatola Basin. Most women, especially in the Amatola Basin, were married. The number of women over the age of 24 who were still married was 43 out of 49 (88%, or 29% of the total urban sample) in Guguletu and 59 out of 71 (83%, or 39% of the total rural sample) in the Amatola Basin.

Amongst men, divorce was slightly higher amongst the urban than the rural sample. The same percentage of men was separated in Amatola Basin and Guguletu. Marriage ratios were higher in Guguletu since some of these men had their wives in the rural areas. These men were encouraged by their parents to seek wives there. This is one of the reasons why there were fewer men in Guguletu than at the Amatola Basin who were not married. Another contributing factor is that more Guguletu men were already working, meaning that, they were eligible for marriage than the Amatola Basin men where a larger proportion than that of the Guguletu respondents was still at school.

TABLE 33

MARITAL STATUS OF MALES BY THEIR AGE

MStatus		ages of male respondents						TOTAL
		20-	21-30	31-40	41-50	51-60	60+	
NEVER	U	29	55	17	-	-	-	101
MARRIED	R	61	33	11	8	2	-	115
MARRIED	U	-	10	14	6	6	1	37
	R	-	3	8	12	3	-	26
SEPARATED	U	-	3	1	-	-	-	4
	R	-	1	2	2	-	-	5
DIVORCED	U	-	1	4	-	1	-	6
	R	-	1	-	2	1	-	4
WIDOWED	U	-	2	-	-	-	-	2
	R	-	-	-	-	-	-	-
TOTAL	U	29	71	36	6	7	1	=150
	R	61	38	21	24	6	-	=150

SYMBOLS: U-Urban; R-Rural

Most married respondents were living in the places where they had been brought up. Of the total sampled married women, only 35% Guguletu and 6% Amatola Basin women, were not brought up in these areas. A similar trend was observed amongst men. 51% of the sampled married Guguletu men were brought up outside Guguletu, compared to 4% of the Amatola men who had been brought up outside the Basin. Separation was more common amongst people who had been brought up in an area other than the present one in which they lived, more especially in the rural areas. Of all the women who were separated, 60% (Guguletu) and 100% (Amatola Basin), were brought up in the rural areas. The influence of the environment at which they were brought up may have had an influence over their marital status.

5.8 EDUCATION

5.8.1 Level of education by residence

NB Illiteracy or very little school education usually accompany limited means of planning. Classically, the relationship between women's educational status and levels of fertility has been inverse- the higher the education, the lower the fertility (United Nations, 1980a).

During the period of research, it was surprising to find that most people could read a newspaper in either vernacular or an official language. This is illustrated in the following tables:-

TABLE 34

NUMBER OF RESPONDENTS ABLE TO READ A NEWSPAPER

	MEN		WOMEN	
	GUGULETU	AMATOLA BASIN	GUGULETU	AMATOLA BASIN
COULD READ	146(97%)	138(92%)	148(99%)	149(99%)
COULD NOT READ	4(3%)	12(8%)	2(1%)	1(1%)
TOTAL	150(100%)	150(100%)	150(100%)	150(100%)

TABLE 35
LANGUAGES READ BY RESPONDENTS

LANGUAGES	MEN		WOMEN	
	GUGULETU	AMATOLA	GUGULETU	AMATOLA
VERNACULAR ONLY	23(15%)	53(35%)	23(15%)	44(29%)
BOTH LANGUAGES	123(82%)	86(57%)	125(83%)	105(70%)
NONE	4(3%)	11(8%)	2(2%)	1(1%)
TOTAL	150(100%)	150(100%)	150(100%)	150(100%)

By both languages (in table 35), was meant people who could read Xhosa (or any of the African languages), English and/ or Afrikaans.

The null hypothesis that men were equally literate (i.e. able to read a newspaper) as women was tested using a chi-square test (see p.76). It was concluded, at the 5% level of significance ($\chi^2 = 1,259$) that women were equally literate as men.

In another test, the null hypothesis that all respondents from the Amatola Basin and Guguletu were equally literate was tested. It was concluded at a 5% level of significance that Guguletu respondents were more literate than Amatola Basin respondents. In table 24, 10% (male) and 13% (female) respondents from Guguletu had 12+ years of schooling. In the Amatola Basin, it was only 1% (males) and 4% (females) at this level of education. The different percentages on the levels of education for all respondents are shown in table 36:-

TABLE 36
EDUCATIONAL LEVELS OF THE RESPONDENTS

YEARS OF SCHOOLING	MEN		WOMEN	
	GUGULETU	AMATOLA	GUGULETU	AMATOLA
0	2(1%)	6(4%)	2(1%)	1(1%)
2	1(1%)	1(1%)	-	-
4	12(8%)	18(12%)	3(2%)	10(7%)
7	35(23%)	54(36%)	30(20%)	58(39%)
10	76(51%)	61(41%)	73(49%)	64(42%)
11	9(6%)	8(5%)	22(15%)	11(7%)
12+	15(10%)	2(1%)	20(13%)	6(4%)
TOTAL	150(100%)	150(100%)	150(100%)	150(100%)
AVERAGE YEARS OF SCHOOLING	8,2	7,1	9,0	7,7

The level of illiteracy (i.e. less than 4 years of schooling) was surprisingly not very high in either area. Most people were able to read a newspaper in vernacular and either or both the official languages. The low level of illiteracy at the Amatola Basin supports the findings by Mc Quarrie (reprinted in Wilson and Perrot, 1972). By 1954, South Africa had one third of the total African children at school. However, the Victoria East district in Ciskei was found to have almost all of its African children at school. This district had good education because of institutes like Lovedale in Alice where the missionaries founded schools earlier in the nineteenth century. (The picture is different for the South African situation as a whole. The level of illiteracy has been found high in the African population). By 1980, close to 8 or 9 million people, were illiterate in South Africa (Wedepohl,

1984). Most of them were Africans. The figure excludes the 'independent homelands' which are also believed to have high rates of illiteracy. This means that the actual rate of illiteracy is probably consistently under-represented before the analysis even begins.

5.8.2 Education, area of residence, and the number of children

From the research, the rural respondents were less educated than those from the urban area. Sampled women were better educated than men. 8% of the sampled rural females had at least 4 years of schooling (i.e. Std. 2) or 92% had 7 or more years of schooling, whilst only 3% urban females had 4 years of schooling, or 97% had 7 or more years of schooling. A high percentage of the sampled females had at least 10 years of schooling (i.e. 72% and 89% sampled urban and rural females respectively). On average, the urban respondents had 8+ years of schooling as compared to 7+ years amongst the rural respondents. At a 5% level of significance, urban respondents were found better educated than their rural counterparts.

Amongst female respondents, 19% of Guguletu and 35% of Amatola Basin females who had seven years of schooling had children (see table 38). This shows that there is a higher percentage of Amatola Basin women with children than that of the Guguletu women

at this level of education. Amatola women had up to 9 live births as compared to a maximum of 5 amongst Guguletu women at this level of education.

The maximum number of children for all women increased until they (women) had had 10 years of schooling. Thereafter, their total number of children followed a decreasing trend (see table 37).

NB

It also emerged that urban female respondents at different levels of education had fewer children than their rural female counterparts. Although the oldest women (with 7 years of schooling) were 49 years old in both areas, their maximum number of live births was 5 for Guguletu women as compared to 9 for women in the Amatola Basin.

Of the women with four years of schooling, Guguletu women had up to 6 live births as compared to 8 amongst the Amatola Basin women. Amongst those with 12+ years of schooling, Guguletu women had up to 5 children as compared to a maximum of 2 amongst Amatola women. However, the highest recorded age for Guguletu women at the 12+ level of education was 49 years against 29 years amongst the Amatola Basin women. These situations are clearly shown in the tables 37 and 38.

TABLE 37

LEVELS OF EDUCATION BY AGE OF THE FEMALE RESPONDENTS

		AGES OF THE RESPONDENTS										
RESPONDENTS		14	19	24	29	34	39	44	49	54	59+	TOTAL
years of schooling	AREA											
0	F(U)	-	-	1	-	-	-	1	-	-	-	2
	F(R)	-	-	-	-	-	-	1	-	-	-	1
2	F(U)	-	-	-	-	-	-	-	-	-	-	-
	F(R)	-	-	-	-	-	-	-	-	-	-	-
4	F(U)	-	-	-	1	-	1	1	-	-	-	3
	F(R)	-	1	2	2	1	1	2	1	-	-	10
7	F(U)	1	6	7	3	4	5	3	1	-	-	30
	F(R)	-	8	10	10	17	8	4	1	-	-	58
10	F(U)	-	10	19	17	7	11	5	2	2	-	73
	F(R)	-	15	15	13	8	7	6	-	-	-	64
11	F(U)	-	2	9	2	7	2	-	-	-	-	22
	F(R)	-	7	3	-	1	-	-	-	-	-	11
12+	F(U)	-	-	7	6	4	-	1	1	-	-	19
	F(R)	-	-	4	2	-	-	-	-	-	-	6
TOTAL	F(U)	1	18	43	29	22	19	11	4	2	-	=149
	F(R)	-	31	34	27	27	16	13	2	-	-	=150

(1 respondent missing from the urban sample)

Symbols: U-Urban; R-Rural

TABLE 38

FEMALE LEVELS OF EDUCATION BY THE NUMBER OF LIVE BIRTHS

RESPONDENTS years of schooling	area	number of respondents' children											TOTAL
		0	1	2	3	4	5	6	7	8	9	10+	
0	U	-	1	-	-	-	-	1	-	-	-	-	2
	R	-	1	-	-	-	-	-	-	-	-	-	1
2	U	-	-	-	-	-	-	-	-	-	-	-	-
	R	-	-	-	-	-	-	-	-	-	-	-	-
4	U	-	1	-	-	1	-	1	-	-	-	-	3
	R	1	1	1	1	3	1	1	-	1	-	-	10
7	U	1	15	5	5	1	3	-	-	-	-	-	30
	R	5	10	13	10	6	8	3	2	-	1	-	58
10	U	17	20	16	8	3	6	1	1	-	1	-	73
	R	18	11	11	10	7	3	2	2	-	-	-	64
11	U	7	7	2	5	-	-	1	-	-	-	-	22
	R	9	2	-	-	-	-	-	-	-	-	-	11
12+	U	-	10	6	2	-	1	-	-	-	-	-	19
	R	-	5	1	-	-	-	-	-	-	-	-	6
TOTAL	U	23	54	29	20	5	10	4	1	-	1	-	=149
	R	33	30	26	21	16	12	6	4	1	1	-	=150

(1 respondent missing from the urban sample)

SYMBOLS: U-Urban; R-Rural

A chi-square test was used to test the association between number of children and the years of schooling for female respondents. Columns and rows had to be collapsed so that cells could have counts not less than 5 in each cell. There were three rows (less than 2 children; between 2 and 4 children; greater than 4 children) and 6 rows (0; 4; 7; 10; 11; 12+ years of schooling). At 10 degrees of freedom and 0,003% level of significance, there was found to be an association between number of children that the respondents had and years of schooling but the association was found trivial ($\phi=0,30$).

However, the sample size affected the results because, even though columns and rows were collapsed, there were 33% cells with counts less than 5.

From the rows, a pattern emerged. Amongst women with less than two children, the majority (46,48%) had 10 years of schooling. Of those with between more than 4 children, the majority (42,50%) had 7 years of schooling.

Amongst women with less than two children, only 25,35% had less than ten years of schooling compared to 55% amongst women with greater than four children.

NS / These percentages show that, women at higher levels of education had fewer children. The sampled women, after ten years of schooling, had fewer children. This supports the hypothesis that "number of children" and "opportunity cost of time/resources 'invested' in children" are negatively related (assuming that basic human capital theory is correct - i.e. more schooling will result in more productivity and lead to higher income).

In another test for the association between years of schooling and the area of residence, at 0,0001% level of significance and 5 degrees of freedom, the association was found trivial ($\phi=0,273$). The cells were collapsed to have counts greater or equal to 5 for a chi-square to be a valid test.

Another test was done to test the association between number of children and women (both urban and rural) with less than ten years of schooling and greater than/equal to ten years of schooling. At 0,001% level of significance and 2 degrees of freedom, the a general association was found but the association was found trivial ($\phi=0,215$).

When the same test (as above) was done for females by area of residence, at 0,000% level of significance and 1 degree of freedom, a general association was found. However, the degree of the association was very minimal ($\phi=-0,236$). For both urban and rural females, after 10 years of schooling, they had less children.

From the research, amongst men, a similar trend was observed. There were men who had up to 10 children without formal schooling. Of the men with 7 years of schooling, men from the Amatola Basin had a maximum of 10+ children as compared to a maximum number of 4 children amongst the Guguletu men. The highest recorded number of children was obtained amongst the men (both rural and urban) with less than or equal to ten years of schooling. The men with ten or more years of schooling, had fewer children. Of the men with 12+ years of schooling in the Basin within the ages of 21-30, more had no children. This further supports the hypothesis that an increase in the educational level beyond a certain minimum (which in this

TABLE 39

AVERAGES OF AGES, EDUCATIONAL LEVEL AND THE NUMBER OF CHILDREN

		AGE	YEARS OF SCHOOLING	No.OF CHILDREN
GUGULETU	MEN	29	8,2	1,5
AMATOLA	MEN	28	7,1	1,3
GUGULETU	WOMEN	28	9,0	1,9
AMATOLA	WOMEN	27	7,7	2,3

Chi-square tests were used to test the levels of post-school education for Amatola Basin and Guguletu respondents. Post-school education did not mean any skills acquired after 12+ years of schooling. It meant any outside formal schooling courses that had been done (e.g. at work, even if a person had had only 8 years of schooling). There were 9% Guguletu men with post-school education as compared to 6% Amatola men. Of the female respondents, 11% of Guguletu females and only 1% of Amatola females had post-school education.

The null hypotheses that all men and women had an equal level of post-school education were tested. It was concluded at a 5 percent level of significance (see p.76) that Guguletu men as compared to the Amatola Basin men; Guguletu women as compared to the Amatola Basin ones ($D= 8,865$), had a higher level of post-school education.

In summary, the hypotheses seem to hold that there is a correlation between education, income, urbanisation and fertility. The following chapter will discuss the results against literature findings on these and other factors.

PART D: RESEARCH RESULTS IN RELATION TO OTHER DETERMINANTS OF
SOUTH AFRICAN POPULATION

CHAPTER 6

FINDINGS ON URBANISATION, EDUCATION, INCOME, AND OTHER FACTORS

The research results were applicable to the two areas that were researched upon. In this chapter, the results are discussed against other findings on Blacks in South Africa.

6.1 FINDINGS ON URBANISATION

From the research, there seems to be an urban/rural difference in fertility. There were more urban than rural female respondents using contraceptives. Early contraceptive use was evident in Guguletu than in the Amatola Basin. There were more unmarried women in Guguletu than in the Amatola Basin. Guguletu respondents were more literate than Amatola Basin respondents. Guguletu females had less children (1,9) than the Amatola Basin females (2,3). In the Amatola Basin, most men and women were 'picking up stones' and earning less than the Guguletu respondents.

In South Africa, many Blacks in the cities have been socialised in a rural and tribal milieu. A large number of Africans are migrant workers who are only temporarily in the cities and who intend returning to their families in the 'homelands' (Lotter & van Tonder, 1976:44). Thus even when rural-urban migration has been a

response to economic opportunities in the city, it has not necessarily resulted in the separation of an advanced sector of the population from its rural base and the development of a town-based subculture. (Petersen, 1971:43)

High fertility has been found amongst women from the Amatola Basin as compared to Guguletu women. The majority of the Amatola Basin women were also in the agricultural occupational status. Lower fertility was found for women who have at least primary education, urban residence and non-agricultural occupational status. The urban, better educated of non-agricultural occupational status, tend to use contraceptives to a greater extent than other women. According to the United Nations (1980b), this finding holds for developing countries but these urban women apparently do not plan the ultimate size of their families at the beginning of their reproductive careers. The biological, social and economic factors are permitted to determine the timing of the next birth rather than total family size, at least until no more children are wanted.

conclusion As stated earlier in chapter 4, urbanisation contributes to fertility decline. The most important objective of a population policy would be to raise the quality of life of the population, but such a policy can only succeed if the socio-economic upliftment of the population is possible. The effect of urbanisation in this upliftment effort is of great importance and should therefore not be underestimated.

The World Bank (1984b) also confirms the unusually important position of residence. Urbanites have access to better education, job opportunities, better public health environment, avenues for self-improvement and social mobility. They also face higher costs in raising children. With all these differences taken into account, urban fertility tends to be substantially lower than rural fertility (also see Stolnitz, 1983).

However, the effect of urbanisation on aggregate fertility is limited in the short term, especially because most migrants tend to be of child-bearing age, thus raising the total number of births in cities, even if their own fertility is relatively low (World Bank, 1984b).

In general, there is a slight difference between urban and rural fertility rates among Africans. Urbanisation does not per se cause fertility decline. It tends to promote fertility decline. To support this, Du Plessis and Coetzee (1974:17) have found that "among the Bantu urban dwellers in Cape Town, where Transkei (the homeland of the Xhosa) is far removed... an attitude to fertility which tends towards smaller families has possibly started to develop".

As further supported by Chilman (1968), the attitudes a couple may have in deciding their total number of children, has been associated with urbanisation and industrialisation. It is more difficult for the poor to achieve their desired family size. The cultural,

economic, and social pressures and expectations of the poor are .pa different from those of the affluent (Potts & Selman, 1979). There is a high probability that other factors which influence fertility reduction (for example, education, health, change in family structure, etc.) are stimulated by urbanisation. (RSA, 1983b)

The greatest advance since the inception of the Population Development Programme is the acceptance by government that urbanisation is recognised as an important factor in bringing down birth rates (RSA, 1985). The cost of housing, education, as well as job opportunities, automatically pushes people towards limiting their family size. It is a phenomenon already evident in South Africa where the Black birth rate is lower in the cities than in the rural areas.

"In a democracy there is no alternative to industrialisation, urbanisation and (consequently) higher level aspirations (causing a need for effective family planning) to influence the population's fertility norms and behaviour. The faster these processes can take effect, the faster fertility can be expected to decline." (Kok, 1986:30)

6.1.1 Ideal number and sex preference for children

Although the average number of children for females was 2,3 (Amatola Basin) and 1,9 (Guguletu); and for men 1,3 (Amatola Basin) and 1,5 (Guguletu), other researchers have found a high average number of

children. Lotter and Schmidt (1973) found an average figure of 5,6 children among urban Pedi men in Mamelodi and Atteridgeville (near Pretoria). In South Africa, the fertility rate of Africans is 5,96 (rural) and 5,0 (urban). The average fertility for Africans is 5,7 (Sadie 1982, In: RSA, 1983b).

van Tonder (1985) found the mean number of children (ever) born decreasing by area of residence. Women residing in the rural area had an average of 3,5 children as compared to 3,4 children (for women residing in town) and 3,0 children (for women residing in the city). In the Western Cape, Kemp (1984) found a higher percentage of early births among Blacks in the country areas as compared to the city.

From the research results, there were more Amatola Basin women who wished for 5+ children than in Guguletu. A high ideal number was observed amongst older women as compared to the younger ones. The ideal numbers of children for all women was greater than their actual numbers of children. During a multipurpose survey among Blacks in 1974, there was a positive correlation between ideal number and the ages of women. It was also found that Black women in urban areas of South Africa regard an average of 7,5 as their ideal number of children (Lotter & van Tonder, 1976). Later, an average ideal fertility of between 5 and 6 children was found amongst Blacks (Mostert & van Tonder, 1982).

In Daveyton, the highest average norm for ideal family size (4,9) was found in the older women with a lower educational level. This finding therefore supports the possible influence of modernisation on the Black women's norms regarding ideal family size since there is an indication that a larger percentage of younger women had higher educational qualifications than was the case with the older women (Erasmus, 1981). The ideal number of children of urban dwellers who regard themselves as more Western orientated is lower than for women who are Western and traditional, or only traditional. (van Tonder, 1985)

During research, all respondents wished for a balance in the sexes of their children. Most respondents wished for 4+ children. Men generally wished for more boys than girls. Almost all men (without children) wished their first child to be a boy. It did not matter whether they were from an urban or rural background. The Amatola Basin women wished for more children as compared to the Guguletu women. The ideal total number of children and preference for boys for Amatola Basin women was slightly greater than that for Guguletu women. This seems to support the findings of the international literature (in chapter 4) that the low status for women induces a preference for sons over daughters.

van der Merwe and van Wyk (1982) in their research amongst African men found that men preferred more boys than girls. In general, they found that older men (compared to the younger men), had a high ideal

number of children. They therefore deduced that older men give preference to a bigger ideal number of children than younger men. In a tribal context, the Black man attached a special value to both sons and daughters. In the case of daughters, the value centered mainly on the delivery of bride-price to the parents of the bride (van der Merwe & van Wyk, 1982), whereas in the case of sons, the main concern was care of their parents in old age. With regard to sons this implies that the more sons one has, the greater the possibility of a care free old age regarding material goods (Du Plessis, 1975).

In Daveyton men were asked as to what extent a large family is still in an urban milieu regarded as an economic asset. Approximately 25% were of the opinion that children have a definite economic value. This indicated that a considerable percentage of urban Black men do not support the statement that a man's children are his riches (also see: Lotter & Schmidt, 1973). This finding indicates that urbanisation exerts a definite influence on the traditional view of the Black men with regard to this aspect. The same phenomenon is also observed when it is noted to what extent the Black man consulted his wife as partner in determining an aspect such as family size (van der Merwe & van Wyk, 1982).

According to Pauw (1969) the urban Black man still accepts the ideal that a girl should not become pregnant before marriage. Nevertheless, the majority of teenagers regard full sexual intercourse as normal practice. Mayer (1963), Ramphele (1984a), are

of the opinion that most African girls lead a full sexual life at the early age of 15 and 16 years. By 1985, the age at which girls lead a full sexual life had come down to 11 years (Trollip, 1985).

Rip and Schmidt (1977) found high illegitimacy rates among urban Blacks in Pretoria as part and parcel of the transition of Blacks from a traditional rural population to a modernised urban population which has resulted to a large extent in the weakening of the regulatory functions of the norms.

This weakening of the norms is manifested among other things in a much more permissive attitude to pre-marital sex. This, accompanied by a breakdown in parental and other forms of social control because of urbanisation and social change, has resulted in younger people engaging more readily in pre-marital sex and because of the extremely limited use of contraception, the consequence is a high pre-marital birth rate.

In view of the above, it is obvious that the small family norm, that is, that of a father, mother, and two children, conflict with the traditional view with regard to the size of the family (also see van der Merwe & van Wyk, 1982:18).

6.2 FINDINGS ON EDUCATION

6.2.1 Education and family planning

Educational status is closely tied up with attitudes towards family planning. Among the various factors related to family planning practice, differences according to level of education, generally appear to be the most significant. It is expected that low levels of education would be associated with low levels of contraceptive use, and conversely, the proportions of users would be highest among the better educated. Quite often, however, educational level and place of residence (urban/rural) are interacting variables. (United Nations, 1980b)

From the research, the Guguletu respondents were found more literate than the Amatola Basin respondents. All respondents (with 10+ years of schooling) had fewer children than those with less than 10 years of schooling. The level of post-school education was also high in Guguletu than in the Amatola Basin. More women in Guguletu were using contraceptives than in the Amatola Basin.

Lotter & van Tonder (1976) found that approximately 70 percent African women from the homelands and the White areas of South Africa could read some language (or other). It appears that, even if they were able to read some of the languages, more females could only read Bantu languages (27%), than for example, English alone (0,2%).

According to the report by the President's Council's Science Committee on informal and non-formal education in South Africa (RSA, 1984), 50 per cent of South Africans over 20 years of age were illiterate. Some 67,8% of adult Africans were unable to read or write; 51,8% of urban and 79,1% of rural Africans were illiterate. The literacy percentages of the respective population groups aged 7+ years in 1980 was 90,4% (Asians); 96,9% (Whites); 81,9% (Coloureds); and 63,6% (Africans). (RSA, 1983a)

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Illiteracy or very little school education usually accompany limited means of family planning. Classically, the relationship between women's educational status and levels of fertility has been inverse- the higher the education, the lower the fertility (WFS, 1978; United Nations, 1980a).

According to Lotter and van Tonder (1976), ~~A~~fricans with higher education have fewer children than the less educated ones. This is because they have a different set of preferences and are thus inclined to (make still) further substitute (of) quality for quantity. It is also because, on average, educated people earn a higher income. Lastly, because of education, they will use better more effective contraceptive techniques and use a given set of technique with higher success because they are better "contraceptors".

However, education is not the only decisive factor in helping to bring about a decrease in fertility rates but other factors, like urbanisation and income, play an important role in changing people's attitudes towards limiting their family numbers (Lotter & van Tonder, 1976). However, education (unlike income) is more consistent in its effect, and is more likely to reduce fertility in most circumstances (World Bank, 1984b).

6.2.2 Education, residence, marriage and fertility

Guguletu respondents were more literate than the Amatola Basin respondents. They (Guguletu respondents) also had fewer children when compared to the Amatola Basin respondents. In an earlier study amongst Africans in South Africa, similar results were found (see Lotter & van Tonder, 1976; van Tonder, 1985).

Lotter and van Tonder (1976) found an inverse relationship between educational level, area of residence and fertility amongst women who had had a child before. Women between 25 and 29 years with greater than 9 years of schooling in rural areas, had for example, an average of 2,4 children; those with 4-8 years of schooling, 2,8 children; and those with 0-3 years of schooling, 3,0 children. In urban areas the figures were respectively 2,3; 2,8; and 3,0. If all the age groups are taken into consideration, it appears that the particular relationship was stronger in urban than in rural areas.

In the case of persons with lower educational qualifications (i.e. 0-3 years of schooling), the fertility of the urban group in most age categories was higher than that of rural women.

In another study undertaken by the United Nations (1980a) amongst married women, the negative relationship between level of education and fertility persisted across marriage cohorts, although the strength of the association was not the same for all groups. It was weaker for those who married early and stronger for those who married at least 20 years of age.

van Tonder (1985) found that African women who were married early (less than 15 years of age) with 7 or less years of schooling had more children (1,4) than those with, for example, 12 years of schooling (0,8). Amongst those who got married at the ages of 20-21, those with 7 or less years of schooling, had 2,3 children as compared to those of the same age with 12+ years of schooling who had 1,6 children.

NB Late entry into marriage, (coupled with improved educational level) may reduce the number of children a woman may ultimately have. Lotter & van Tonder (1976), revealed that, on the whole, women with high educational level begin with reproduction later than women with inferior qualifications. Voluntary postponement of marriage could

be effected by higher educational levels, which would depend on removal of sex discrimination in employment and the availability of jobs for women requiring higher educational attainment (Kok, 1982)

At the Symposium on Population and Development it was stated that the discouragement of early marriage is a potentially effective way of reducing population increase and that this is generally neglected as a useful instrument of population policy (In: United Nations, 1974b). The United Nations again found that age at first marriage is one of the most important determinants of ultimate family size. In most societies, where family planning is not widespread, women who marry early will complete their childbearing with more births than women who marry later. In addition to a shorter period of exposure to conception, it is suggested that women who delay marriage become exposed, through education and employment, to influences that provide alternatives to childbearing, with an effect that their fertility desires are reduced (United Nations, 1980b).

It could be concluded that there is a fairly substantial evidence that educational level achieved and female age at marriage are negatively related, but the nature of this relationship is complex and the causal mechanisms little understood. Education, tends in itself to encourage women to marry late. However, according to the United Nations (1980b), other social factors, such as family

structure, also contribute to determining not only the acceptable age for marriage but, and in this very connection, whether education is to be encouraged (if late marriage is accepted) or be discouraged (if early marriage is accepted).

One demographic factor controlling marriage timing is the availability of appropriate partners (Keeley, 1976). Besides wars, sex-specific migration, and changes in mortality rates that make a longer search for a mate necessary, female education has a large and reliable effect on marriage timing (World Bank, 1984c). The average woman with 7+ years of schooling marries at least 3.5 years later than an average woman with no education in most developing countries. The average urban woman marries at least 1.5 years later than the average rural woman in developing countries (Mc Carthy, 1982). Urban-rural residence has a small effect than that of female education in delaying marriage.

Early childbearing may have no long term impact on the well-being of very young parents, but it may impose costs on the child, child's grandparents, or on the society generally- all of whom may have to compensate in one way or another for the relative immaturity or lack of financial resources of the parents.

Graff (1979) has launched an attack on the negative relationship between education (& literacy) and fertility. He states that evidence for such a relationship is not nearly as general or as

strong as was often believed. He believes that education's influence is not direct and that fertility change is mediated by more basic factors (like economic circumstances). These views by Graff are strongly criticised by Caldwell (1980) who postulates that education does have an impact on fertility through five (or more) mechanisms, namely:-

1) Education reduces the child's potential for work in and around the house, because school attendance takes up most of the child's time and the child is "...frequently alienated from those traditional chores that he feels to be at odds with his new learning and status" and the parents may discourage traditional work to enable the child to devote all his energies to his school work. In this way the child is seen less as a potential economic asset to the household.

2) Education is costly business, beyond the fees, uniforms and stationery demanded by the school, because indirect demands are placed on families for better clothing and appearance of children and the child brings home monetary and other demands not present in the traditional family system. In this sense, children cause expenditures for the morally obliged parents.

3) Schooling creates dependency. "In the absence of schooling all members of the family are clearly producers- battlers in the family's struggling survival." This means that children can no longer be expected to really share responsibility for the survival of the family and are, therefore, more of a burden.

4) Education speeds up cultural change and creates new cultures in all classes because Western schools emphasize the capitalist economy and not family production.

5) In the developing world of today, schools serve as major instruments for propagating the values of the Western middle class, while traditional family is regarded as irrelevant and belonging to a previous era.

These mechanisms do, according to Caldwell, have an impact on fertility decline and "...the significance of the changes in terms of altering the impact of fertility on parental prerogative may well be in ascending order as listed" (Caldwell, 1980). Later, Kok (1982) concluded that improved literacy and education are important contributors to fertility decline (also see World Bank, 1984b).

6.3 FINDINGS ON INCOME

From the research, urban respondents earned three times more than the rural respondents. There were also more Amatola men in second jobs (to supplement the income from the first jobs). Unemployment was high (especially in the Amatola Basin). There was a correlation between income and fertility. Membership of Umgalelo and the level of dependency was higher in the Amatola Basin than in Guguletu. More rural respondents were in the agriculture and

public administration employment as compared to Guguletu. More rural men than urban men were dependent upon their parents for support.

NB In most developing countries the urban poor, as much as their rural counterparts are seemingly caught in a vicious circle where low incomes cause poor education, nutrition and health, which in turn leads to low productivity and low incomes (World Bank, 1982). The poverty of (the) Third World countries denies people (the) means of economic improvement, seeing that betterment is aborted by social and biological forces. By contrast, in the First World countries, conditions are almost the opposite. The birth rate is under control and the death rate no longer significantly responds to improved living standards (Galbraith, 1984).

In Western (or developed) countries, there is often very little difference between urban and rural incomes, and even less so when relative costs of living are taken into consideration. In the Third World countries, urban incomes have been found to be, on average, two and a half times higher than the rural incomes (Harrison, 1980). "Such differences are generally highest in Africa, where urban growth has been the fastest " (Harrison, 1980:414). The pattern of urbanisation in Third World countries is characterised by a heavy concentration of economic activity and wealth in a few large population centres, in sharp contrast to the economic stagnation and much lower average incomes found in some non-urban regions.

6.4 FINDINGS ON OTHER FACTORS

6.4.1 Findings on mortality

The infant mortality rate (IMR) has long been considered one of the most reliable indices of the general health of a population, its standard of living, and the efficacy of the health services. It is well recognised that birth weight is the single most important factor affecting infant death. For infants the risk of dying is closely related to the nature of the environment in which they live, as well as their weight at birth.

The infant mortality rate is recognised as an important indicator of the health status of children and of the level of socio-economic development. Infant mortality results from a wide variety of influences: physiological causes, availability and quality of medical care, and specific disease entities, as well as a wide range of socio-economic and environmental factors.

Demographers consider access to food or nutrition, medical care, sanitation and housing as the major factors having a significant environmental effect on infant and child mortality.

Many of the factors that have been associated with infant mortality operate through their effect on the birth weight distribution. Rip & Tibbit (1984) have condensed, from a number

of recent reports, certain characteristics which are associated with greater risk of infant death. These maternal risk factors include: race, age-birth order, previous foetal or infant loss, legitimacy status, level of education, interval between consecutive births and poor nutrition during pregnancy, and the timing and frequency of prenatal care; all of which are also associated with increased risk of low birth weight. Other maternal characteristics which have been shown to inhibit the intrauterine growth potential of fetuses and elevate the low birth weight in infants, are maternal stature, prepregnancy weight, weight gain during pregnancy, and various maternal diseases such as anaemia. According to Maine (1981:9), a child's chances of being born healthy, of surviving the first few years of life and of growing well are reduced if: "(1) children in the family are born close together in time, (2) there are already 3 or more children in the family and, (3) the mother is younger than 20 and older than 35 years when the child is born."

From the research, the infant mortality has been found high in Guguletu and Amatola Basin. However, the proportion of infant deaths and the pregnancy rate was higher in the Amatola Basin as compared to Guguletu. The percentages of miscarriages and stillbirths were low in both areas. However, most deaths occurred before the infants were 12 months old.

The major causes of infant mortality in South Africa differ by race. The Minister of National Health and Population Development has given these figures in table 40 for 1983 (Social Work, 1986:102):-

TABLE 40

CAUSES OF INFANT MORTALITY BY RACE IN SOUTH AFRICA (1983)

RACE	CAUSE	PERCENTAGE OF INFANT DEATHS
WHITE	Low birth weight	40
	Congenital anomalies	19
	Respiratory infections	7
	Perinatal respiratory conditions	7
	Intestinal infections	3
COLOURED	Intestinal infections	30
	Low birth weight	27
	Respiratory infections	16
	Congenital anomalies	4
	Perinatal respiratory conditions	2
ASIANS	Low birth weight	46
	Intestinal infections	12
	Congenital anomalies	10
	Respiratory infections	5
	Perinatal respiratory conditions	5
AFRICANS	Intestinal infections	57
	Low birth weight	21
	Respiratory infections	13
	Perinatal respiratory conditions	3
	Nutritional deficiencies	2

In a comparative study of the developed and less developed countries undertaken by the United Nations (1984a), the two major causes of death in developed countries are cardiovascular diseases and neoplasms, which together, accounted to 69% of deaths in these countries during the late seventies. Among the less developed countries, more prominent was the high incidence of mortality due to infectious and parasitic diseases, and acute or chronic respiratory

TABLE 42

INFANT MORTALITY RATES FOR THE DIFFERENT RACIAL GROUPS (1984)

<u>RACE</u>	<u>INFANT MORTALITY RATE(per 1000 births)</u>
AFRICANS	80,0 (estimated- because registration of births and deaths incomplete)
COLOURED	46,5
INDIANS	17,4
WHITES	11,7

According to the figures release by the World Bank, recorded for 1982, (Social Work, 1985), South Africa has the lowest infant mortality rate on the African continent. (The rate is calculated as the number of children who die before they reach their first birthday per 1 000 born in a year). The World Bank figures, give South Africa a rating of 55- a sharp improvement over the 1970 rate of 74. Africa's worst rating belongs to Angola where it is 165. According to the Second Carnegie Inquiry, the figure for South Africa when broken down by area, (especially in the rural areas) is more complex than this average one. For example, Transkei (130), Naphuno (73), (Ntoane et al, 1984); and for Soweto (35), Gelukspan, in Bophuthatswana (41), (Fincham, 1985). It is apparent that there is a severe problem in the rural areas where the numbers of children are admitted to hospitals for treatment of malnutrition and death rates are high. Low cash income combined with poor socio-economic conditions is the most important cause of malnutrition. (Ntoane et al, 1984)

Though South Africa has (if the average figures are reliable) a better rate than African countries like Zimbabwe (83), Zambia (105), Mozambique (111), Botswana (80), Nigeria (109), Zaire (106), Kenya (77) and Swaziland (130), its performance is poor in comparison with the world's best. The healthiest places to be born in are Finland, Japan and Sweden where the infant mortality rate is 7. Next on the survival scale are Switzerland, Norway, The Netherlands and Denmark where the rate is 8. (Social Work, 1985)

Grobbelaar (1986) found the life expectancy at birth for Whites in 1980, of the same order as that for the population of the more developed regions. That for the Black population corresponded to the life expectancy at birth of the population of the less developed regions of the world. According to Herman (1984), in a developed country the overwhelming proportion of infants who die, die within the first seven days of life, i.e. during the early neonatal period, whereas in a developing country most infants who die, die after 28 days- the post-neonatal period. In South Africa, he says, White infants have their highest risk of dying during the first seven days of life and Black infants have their highest risk in the post-neonatal period, i.e. after 28 days. In 1984, 60 percent of White infant deaths occurred within the first seven days of life.

TABLE 43

INFANT DEATHS FROM 1975-1980

<u>YEAR</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>
WHITE	1608	1451	1229	1295	1325	974
COLOURED	7021	7420	5815	5233	5856	4519
ASIAN	705	652	529	433	538	403
AFRICAN	10756	9 269	9 670	25599	27990	22713

SOURCE: Horrell M. et al. SURVEY OF RACE RELATIONS IN SOUTH AFRICA
S.A.I.R.R., Johannesburg, 1981. p.54; 1982:44. .

The inconsistent infant mortality statistics for Africans for 1977 and 1978 are due to the incomplete registration of deaths and births (especially before 1977).

According to Hansen (1984), in 1977 the mortality rates per 100 000 were 64, 247 and 1 981 for Whites, Asians and Coloureds respectively. The estimated Black mortality rate in 1970 from diseases only was 2 104. However, the statistics also show that there has been some improvement in infant mortality in the last 15 years and, in particular, a striking improvement in the Coloured population of Cape Town and the Black population of Johannesburg.

Herman (1984) further states that post-neonatal mortality for the Blacks is probably still the most important component of infant mortality. To a lesser extent, for the urban Blacks, early neonatal mortality has become the dominant contributor to infant

mortality. However, the reduction of infant mortality in South Africa requires differing strategies for the different ethnic groups.

AB According to Kemp (1984), infant mortality bears a relationship to both poverty and contraception. It is closely related to the overall level of well-being in a community and reveals how well a society is meeting the needs of its people. In addition, demographic patterns around the world show a clear coincidence between high fertility and high infant mortality.

AB Thus parents who expect a high proportion of their children to die insure against such loss by having more children than they would have if all the children had a high probability of surviving. If parents believe that their children have a good chance to survive to adulthood, they will reduce their family size goals accordingly.

According to the theory of demographic regulation, to lower mortality rates would therefore require a lowering of the ideal family size to match the present rate. This would require a modification of customs, attitudes and outlook to conform to the new pattern. This might be achieved easily by contraceptives.

Reducing mortality appears to be a useful instrument for promoting fertility decline. Decreasing child employment and increasing enrollment levels at schools should favour smaller families, but in the process also penalise large families that depend on children for an important part of their income. (World Bank, 1984c)

6.4.2 Female participation in the labour force

Because of children's value parents are willing to invest both time and money in childrearing. They make decisions not only about how many children to have, but also about how much time to devote to each child. In other words, the demand for, and supply of children has both a quantity and a quality component, with various trade-offs between the two being possible. Not only is the basic care of children demanding the mother's time, but the enjoyment that parents are presumed to derive from their companionship, growth, and development also takes many hours, and it must compete with alternative uses of such time, including other leisure activities. In the rural areas, spending time with one's children does not have to compete with trips to other places to the same extent, nor are the women's wages high enough or their employment opportunities sufficient to cause many families to consider a mother's forgone income as an important cost of having children.

Thus it is not surprising that fertility declines with economic growth. The educational level of women and their opportunity for employment outside the home are much greater in an urban society. Such factors certainly work against uncontrolled fertility. In the rural areas, where illiteracy is high, education is usually a family process and behavior is likely to be determined by tradition- large families are generally considered desirable. In the urban areas couples are more likely to realise the advantage of a smaller family.

According to the HSRC study by Kok (1982), smaller family sizes are associated with higher levels of female participation in gainful employment. "This relationship has been found to be more marked in the industrialised than non-industrialised countries and in urban than rural areas. Moreover, it is the women who work for wages, rather than the self employed or unpaid family workers, who have significantly lower fertility than non-working women" (United Nations, 1973:101). Women who work may on account of just that, postpone or cease childbearing in order to achieve or maintain a higher standard of living, or it may be that, women with no or few children find it easier to accept employment away from home (United Nations, 1973). "Whatever the underlying causes and differentials, the fact remains that female labour participation is inversely associated with average number of children." (Kok, 1982:26)

From the research, Guguletu women had better job opportunities because of the urban environment in which they were in. Most women from the Amatola Basin worked at a single place of employment, with the remaining in the informal sector. Unfortunately, encouragement of women's employment in paid jobs as an incentive for the limitation of births, is not without serious problems. "It is doubtful... how much can be accomplished along this line in developing countries where one of the major problems is scarcity of employment opportunities for either sex, especially in the better paid jobs which would be most attractive as an alternative to motherhood" (United Nations, 1974, par.53).

Female participation in the labour force can possibly be related to the status of women in a country and their educational and occupational status may have an effect on fertility behaviour (United Nations, 1979). "...the likelihood of a woman's entering the labour force may be influenced by her education which in turn depends on other socio-economic factors" (United Nations 1973:102). Although such analysis does not allow generalised conclusions, it does indicate the inverse relationship and should therefore, not be degraded in any population policy aimed at reducing undesirable population growth.

There is a significant relationship between poverty and a household headed by a female. From the research done by the Centre for Applied Social Sciences and the Department of African

*father
sent away a
migrant
labourer*

Studies at the University of Natal (Cross & Preston-Whyte, 1984), it was found that the more distorted (i.e. a family with one of the parents living somewhere else) the actual household structure was, the more likely it had to be economically imbalanced, and at the same time, the weaker its authority and cohesion. The risk of poverty was four times what it was for strong households. From the Carnegie Inquiry, one of the causes was partly found in the migratory labour system which has had a cancerous effect on the fibre of family life amongst Africans. NB

Many factors are believed to have worked against women's acceptance, without precaution, of their traditional role as home-maker and the bearer of children. Factors frequently mentioned as contributing to the changing attitude among women are the increased education and the equality for women in many spheres of public life, the emphasis upon the woman's role as a companion with equality in marriage, and the opportunity for personal advancement. Market Research Africa (1980) has found that in White culture, a Black woman is allowed a freedom which she readily accepts. By 1980, there was in fact, a higher percentage of professional Black women than men. Black men on the whole seem to disapprove of and often resent "women's liberation". They have far more respect for the "tribal mother" than for the "career girl".

In summary, there is an association between education, urbanisation, income and fertility. However, education seems to have more effect in the reduction of fertility than seems urbanisation and income.

CHAPTER 7

FAMILY PLANNING IN DEVELOPMENT POLICY

7.1 BIRTH CONTROL AMONGST AFRICANS IN SOUTH AFRICA

People practice birth control to prevent pregnancy, perhaps because they fear that the coming of children would prevent them from getting certain things they want, like for example, social advancement, and the enjoyment of leisure. "Elimination of births would not only benefit the lives of the women and children concerned, but there would be a reduction in the strain on community health and social services and in the long run the demographic effect would be felt at all levels- education, employment, housing, and all other resources." (Kemp, 1984:5-6) However, family planning programs are most effective in a social environment where infant mortality has been reduced and the status of women improved (Ford Foundation, 1985). NB

The desire to improve one's position in the social scale has been stressed as one of the important motives for family limitation. The effect of social mobility on fertility appears to be attributed in general to the fact that rearing children absorbs money, time and effort which could otherwise be used to rise in the social scale.

Amongst Africans, birth rates are aggravated by illegitimate births among teenagers. The mothers generally do not accompany their children on visits to family planning clinics, and they do not guide and advise teenage daughters in appropriate sexual behaviour (Ferreira, 1984).

While there are various facilities and organisations of role level factors such as overcrowding in homes and the loss of parental control which no doubt contributes to the incidence of pre-marital illegitimacy, it seems that the moral climate is conducive to pre-marital coitus and that the lack of contraception results in many births. As the Black adjusts to urban life and factors such as housing and education improve, and the influence of traditional practices such as lobola and large families weaken, the moral climate may become more conducive to pre-marital sexual intercourse. Such permissive norms may become institutionalised and accepted in the society. (Rip & Schmidt, 1977).

Lotter & van Tonder (1976) researched reasons for visiting and not visiting clinics. Ignorance concerning the existence of such clinics and because the woman would like to be pregnant, appeared to be the main reasons. The first of these reasons was mentioned much more often by rural than by urban dwellers. They deduce that, probably the desire to have more children, and ultimately relatively large families, is the main reason for not visiting the clinics.

From the research, more Guguletu than Amatola Basin females used contraceptives. There were also more women pregnant (at the time of the interview) in Amatola Basin than Guguletu. "This marked difference between country and city may be due to better educational and work opportunities in the city as well as greater acceptance of contraception. The contraceptive services in the urban areas may be more readily available, with greater privacy." (Kemp, 1984:4)

According to Kemp (1984), the timing of pregnancies is the aspect of fertility which has the greatest impact on the economic and social situation of the family. Early pregnancy interferes seriously with the woman's social development and limits her future life options. Her education is interrupted or discontinued, limiting her chances of a career, her earning capacity and even her marriage chances. At an early age she becomes dependent on others, more often than not to '(the) welfare', and eventually this becomes an accepted way of life.

In an area study that was undertaken by the HSRC in 1979 amongst Daveyton women who had used the oral pill immediately before the 'current' use of the injection, the overwhelming majority (88,3%) considered the injection a better method than the oral pill- because (according to them), it had less harmful effect on the health (43,3%), for its effectiveness (16,5%), for its convenience (14,9%) and 13,4% merely wanted to put it to the test (Erasmus, 1981).

In the area studies of Amatola Basin (Fincham, 1982b), Crossroads, Mdantsane, Newlands and Potsdam (Roberts & Rip, 1984), the injection was found to be the contraceptive most often adopted by the clinic.

NS { Reports from family planning programs around the world show that, where women were offered a choice among contraceptive methods which included an injection, between one-quarter and three-quarters chose the injection (Rinehart & Winter, 1975). The use of contraception has been found to increase with the level of education (compare Lotter & van Tonder 1976; Groenewald 1978; Erasmus 1981; van Tonder, 1985).

From the research, most users complained of ^{NB}nausea, "blackouts", headache, weight gain, etc. They alleged that they may get cancer from using contraceptives. Nurses (in the HSRC survey) reported that clients often believe that the IUD (intra-uterine device) "slips out"; that it can grow into the wall of the uterus; and that it can cause cancer. (Ferreira & Mostert, 1984)

Among the Daveyton women who had in the past experienced side-effects with the injection, the majority (80%) had experienced absence of menstruation (amenorrhoea) as a side effect. Erasmus (1981), Bloch & Borkon (1978) found that there is a tendency for vaginal bleeding to decrease and occur at longer intervals after the first few injections. The side effect reported second most often was migraine (45%). In this regard, Kartstadt (1970:480-481) makes the following observation regarding Black women: "Bantu women believe that amenorrhoea means blood will collect in the head,

causing headaches." The most important side-effects otherwise experienced by the Daveyton women were in (the) weight gain (30%) and cramps in the legs(30%).

Several of the methods used are in theory 100% effective in preventing pregnancy. In actual use in developing countries, however, effectiveness is lower because of failure to use methods properly and irregularity in its use, which may be aggravated by weak motivation to avoid pregnancy (World Bank, 1984b).

7.2 ATTITUDES OF AFRICAN MEN TOWARDS FAMILY PLANNING

In the Daveyton survey amongst men (van der Merwe & van Wyk, 1982) after the different sterilization operations had been described to the respondents, about 10% of the men implied that they would consider such an operation for themselves, and 55% would consider it for their wives after completion of the family. These findings are of particular significance especially in introducing sterilization to Blacks, since "traditionally they strongly emphasize virility and reproductive ability" (van der Merwe & van Wyk, 1982:17). From the research results, none of all male respondents (including the partners for female respondents) had been sterilised.

In the HSRC study that was conducted amongst nurses, most respondents reported that the method of sterilisation was the most difficult to motivate clients to use. "The main reason... that the husbands of clients objected... followed by fear of a major, painful operation. The third main reason was the irreversibility of the method. Other reasons were that the method was contrary to the beliefs of Blacks.....Overall it would seem that the reluctance of husbands is the most significant obstacle" (Ferreira & Mostert, 1984:42). However, it has been found that couple communication generally leads to longer and more effective contraceptive use (ESCAP, 1974; Beckman, 1983).

Nurses found it difficult to motivate their clients to use sterilisation as compared to the injection (Ferreira & Mostert, 1984). Black opinion leaders believe that sterilisation is contrary to Black beliefs and traditions. They only approve of it when the woman's life is at stake, or if the couple has reached its desired number of children (Ferreira, 1984). This shows that sterilisation is generally not a popular method.

Bogue (1975) believes that men hesitate to accept the most reliable of contraception available today, i.e. vasectomy. The reasons that he suggests are that, because they mistakenly associate it with castration, they have irrational fears that if they accept vasectomy they will undergo physical, mental, or sexual change. He continues by assuming that another dimension of

the fear is the wife's reaction to vasectomy, where men sometimes fear that their wives will regard them as less virile after the operation.

When the data with regard to modern use of contraceptives as given by the men was compared with the information obtained from Black women in Daveyton (see Erasmus, 1981; van der Merwe & van Wyk, 1982), it appeared that the percentage of use of the female methods in question, according to husband's knowledge, was considerably lower than that indicated by the women themselves. The reason for this could be that Black women are increasingly using modern contraceptives without their husband's knowledge (compare Groenewald, 1978). This is also common in other countries. A number of women use contraceptives without the knowledge of their husbands (Brody et al., 1974; Shedlin & Hollerbach, 1981).

Lotter & van Tonder (1976) found a correlation between objection of husbands to contraception and the female educational level. Women with higher levels of education indicated that their husbands will not object if they were to use something to avoid becoming pregnant again. These were women with children. A lower percentage indicated that they did not know. Again, it emerged that the majority of women in urban areas who had answered 'yes'

or 'no' were convinced that their husbands would not object. The opposite applied to the rural areas. Because of 'independence' experienced by urban women, it is possible that their husbands have little say in the planning and rearing of their children.

Men knew about contraception but did not know the different forms of contraception. This is not unusual. From the HSRC study, it was found that older male informants tended to report that their knowledge of the topic was scanty. This was often admitted with embarrassment and the explanation that family planning is a female concern. A large majority of informants were aware of the programme, although their knowledge was mostly confined to service activities in their areas. A number had 'read a lot' about family planning and had otherwise learned of it through the media. Only a very small minority were 'fully conversant' with most aspects of family planning and these informants tended to be women. (Ferreira, 1984)

The politicisation of family planning emerged from the research. This is however, generally common amongst African men. The main objection (as reported by the HSRC) appeared to revolve around the statement which was made by a White cabinet Minister in a political address around the time of the initial establishment of a family planning campaign in 1965. In this incident it was interpreted that the Minister had urged Whites to have more children and so increase the relative size of the White population compared with that of the Blacks. The political implications of attempting to strengthen the

White stronghold in the country were blatantly apparent. For a large number of Blacks, family planning and the political apparatus of the White government are still perceived as indivisible with the result that the motives of the NFPP remain suspect. The fact that Blacks had not been involved in the planning of the programme at its inception was often deplored (Ferreira, 1984).

In Daveyton, approximately 65,9% men (of the 211 respondents) whose wives were not pregnant at the time of the survey, maintained that they would be glad if their wives should become pregnant again (van der Merwe & van Wyk, 1982). According to Penelope Aarts of the Family Planning Association in Port Elizabeth, calls had gone out to all African women to have a baby in 1985. Attendance at family planning clinics had started dwindling (Cape Times, 19/7/1985).

"For the Black man children have traditionally constituted his wealth, pension and sick fund" (Ferreira, 1984:10). Bishop Desmond Tutu has said, "...it is the duty of us who have been privileged with education and opportunity to show our less fortunate brethren that they need, above all, to be able to limit their children to the number for whom they can provide. We need to rise above the political jealousies and to recognise that for the good of our children we cannot afford to give birth to one single more mouth than we can feed, clothe and educate" (Sowetan, 15/8/1985).

One critical effect is that information and access by themselves do not guarantee use, even among those already motivated to limit their families. According to the President's Council Report (RSA, 1983b), the HSRC reports have shown that South African Blacks still display a low incidence of modern contraceptive use, particularly in rural areas. Traditionalism and cultural norms continue to contribute to a high fertility rate (Ferreira, 1984). Also required is the acceptance of the idea that fertility regulation is a normal rather than a prescribed and dangerous activity.

NB
No form of population control, even the most comprehensive and repressive, will succeed for long unless individuals of both sexes understand the need for it and accept the idea that humanity must limit its numbers. The study on National Family Planning Programme (NFPP) by the HSRC in 1981, concluded that the management of the NFPP can enhance the acceptance of modern contraception by means of policy and structural adaptation. Socio-economic development will have a positive influence on the demand for family planning, and by improving programme services, problems amongst the population at risk could be largely alleviated. (Mostert & Kok, 1984)

PART E: CONCLUSION AND POSSIBLE STRATEGIES TOWARDS POPULATION

GROWTH

CHAPTER 8

CONCLUSION

In South Africa, the most pressing need remains that of reducing the birth rate in the shortest possible time-span. A delay in bringing down this rate is bound to result in less economic progress and missed opportunities for raising living standards.

It would seem that the present high birth rate obstructs the alleviation of poverty. It has diverted resources and hampered economic growth and made it necessary to provide for a larger population rather than for a higher level of living. It has generated an age structure with large numbers of young dependents relative to workers. It has hampered efforts to improve the quality of life by restricting per capita expenditure for improving health, raising educational levels, and teaching new occupational skills.

NB | On the other hand, poverty tends to sustain high birth rates for the obvious reason that families without adequate income, employment, health, education, and social services have little security for the future other than the reliance on their children. They are caught in an underdevelopment trap with large family sizes, not only because, (1) their levels of living are low but also because (2)

N.B. / their self-esteem and dignity may thereby be questioned and, (3) their freedom to choose a desired family size, however large, is constrained by their poverty and economic uncertainty.

Briefly, on family planning, it emerged that:-

Amongst women:

- injection was more popular than other forms of contraceptives
- there were complaints about side effects caused by contraceptives
- there were women who had conceived whilst on contraception
- women plan and rear their children alone
- women use contraceptives without their husbands' knowledge.

Amongst men:

- Men do not want to be sterilised
- family planning is politicised
- their attitudes towards contraceptives are negative.

On the subject of fertility and mortality, it emerged that:

- children are wealth in rural areas, and are becoming an economic burden in urban areas
- the ideal number of children differ with residence and education
- sons are valued more than daughters
- urban respondents earn better income than rural respondents
- there is high mortality in both areas
- delayed marriages and female age at marriage lower fertility.

Starting from the premise that population growth threatens development efforts, an attempt has been made to unravel the determinants of fertility and to draw appropriate implications for population policy. The two basic and complementary approaches outlined, were to focus on specific development policies with the greatest potential for reducing fertility and to provide programs and services to directly affect specific fertility behaviors.

outline
The most promising development policies have been discussed. Very briefly, improvements in education- especially for women- and better health are critical. Income improvements are less central to fertility decline. It is not the ability to afford new goods but aspirations for them that influence parents towards having fewer children. Modern sector employment for women possibly, and less child employment certainly, favour lower fertility.

In short, expanded efforts to make jobs, education and health more broadly available to poverty groups will not only contribute to their economic and psychological well-being, but can also contribute substantially to their motivation for smaller families which is vital to reduce population growth rates. The provision of well-executed family planning programs can then give effect to their desires for smaller families by maximising their realisation in the shortest possible time.

The theories of differential fertility and demographic regulation seem to hold. Although to Malthus, delayed marriage and abstinence could lower population growth, this cannot work for Africans. Many Africans engage in sexual activities at an early age. Therefore, neo-Malthusianism, which substitutes family planning for abstinence will be more effective and applicable in the South African situation.

With regard to programs, the approaches include family planning programs to provide safe and effective methods of contraceptive. Broad social programs to raise the status of women (especially education), are essential to prevent early marriage, and the use of incentives and disincentives to encourage preference for smaller families.

Effective family planning programs depend on adequate human and institutional resources and sufficient public concern about fertility regulation, and therefore cannot be divorced from other development measures. These interventions are complements rather than substitutes.

Much (of) contraceptive discontinuation could be prevented by sensitive provision of family planning services, proper counselling as to the suitability of various methods, and good general health and follow-up services.

The findings amongst African men point to high fertility orientation, a strong belief in the functionality or value of high fertility, a considerable amount of opposition to the practice of contraception which seems to be strengthened by, for example, high fertility norms, politicisation of family planning, and other beliefs, and a widespread lack of awareness of the population problem. Women generally do not inform men about the methods that they use to prevent pregnancy.

On the whole, the expected trend has been found, namely that contraception, like other forms of innovation, is first accepted in urban surroundings and is also first accepted by persons who have obtained high educational qualifications.

Which approach requires emphasis varies from region to region, and from country to country. Cultural and political factors have to be taken into consideration.

intro { The inverse relationship between fertility and educational level, income (and employment), and urbanisation which occurs in most developing countries of the world, is also valid for the South African Black population. The more pronounced correlation seemed to be between education and fertility (especially the education of women). Urbanisation is necessary for exposing a person to these development policies. Employment uplifts the status (especially of women) and income encourages the motivation to reduce fertility.

The level at which these factors tended to affect fertility was found trivial. However, it could not be determined whether, for example, education alone or education together with other variables (at one and the same time) affect fertility.

The following chapter suggests strategies that can be adopted to help slow down the population growth and poverty amongst Africans in South Africa.

CHAPTER 9

STRATEGIES FOR ACTION AGAINST POPULATION GROWTH AND POVERTY IN SOUTH AFRICA

Africans (especially men) politicise family planning - a hindrance to achieving socio-economic advancement. Their suspicions will probably continue until family planning is offered as part of a broader health service, which should even investigate infertility problems. The quality and quantity of contraceptive services has to be improved. The government's family planning program should motivate people to have smaller families. This suggests a need to attend to each of the behavioral determinants of fertility, as well as the political/ institutional basis for effective fertility control.

The question of population control might remain a thorny one until Blacks are convinced that real political reform is on the way. Until then many Blacks just cannot accept the argument that resources are limited. While some of the reactions are purely emotional, with family planning being attacked as "genocide" by African groups, others are more pointed.

The following strategies are put forth against population growth and the level of poverty amongst Africa. They are not the only ones but, for the purpose of the thesis, they can help slow down population growth.

1. EDUCATE MEN ON CONTRACEPTION

Men need to be educated on the available methods of contraception. This might make them responsible and alert to the methods used by their female partners. Alternatively, massive provision of free or subsidised condoms in dispensing machines at the cafes, supermarkets, etc. could make them easily available.

Since medical side effects are one of the principal reasons for discontinuation of the pill and injections, sensitive provision of family planning services, proper counseling as to the suitability of various methods, and good general health services and follow-up could prevent much of contraceptive discontinuation.

2. SEX EDUCATION

Because of the alarming increase in teenage pregnancy, sex education should be taught at schools.

3. ABOLISH APARTHEID

One of the answers lies in the abolition of apartheid which has caused some of the misery experienced in the country. Professor Jill Nattrass of the University of Natal also supports this. She

nb said, apartheid has contributed to the alarmingly high population growth rate in South Africa. Writing in the issue Indicator SA, she said, by slowing down urbanisation and westernisation, especially of Black women, apartheid has contributed to the population growth rate (Natal Mercury, 15/7/1985).

4. EDUCATE AND DEVELOP EVERYONE EQUALLY

A favourable attitudinal climate could motivate people to strive for socio-economic advancement. However, many people in South Africa cannot advance any further because there is no profound faith in the human capability of being able to make it on one's own "against the system" (for example, at school, in managerial positions, etc.). Instead, there is an attitude of developing some people (Blacks) according to the standards of others (Whites). This results in passivity and causes frustration to many Blacks.

5. EDUCATE TO PRODUCE PROBLEM-SOLVERS AND STIMULATE CREATIVITY

The earning capacity of an individual is dependent on his skills and education standard. It is thus quite obvious that an effort to contain the birth rate is dependent on providing the people with relevant education. What is meant by relevant education is one which equips people to become wage-employed or self-employed, or to be adaptable when the need arises to change employment. This implies that the basic objective of the educational system should be to produce people who can solve problems independently and stimulate creativity. The writer agrees with Burns (1985), that to produce problem-solvers necessitates a move away from the hand-out system

which has well nigh destroyed individual initiative in this country. To break this self-destructive cycle, the government should change the present education system into a democratic process in which all can contribute and from which all can benefit. This will result in a more productive and stable society.

For the already employed semi-illiterate and illiterate Blacks, employers can employ a teacher to educate them during working hours. According to Sonn (1986), in Nicaragua, the new literates had gained something besides their literacy skills- a sense of self-respect and dignity which had been denied them in the past.

However, it must be remembered that for better education there must be higher quality teachers, better and conducive environment for learning and improved nutrition. The government, private sector and parents should be included in the educational process in the future.

6. IMPROVE THE STATUS OF WOMEN

Employment generation policies which offer women wage labour and salaried employment will drive the fertility rate down. Social policies which improve the low legal status of African women, and more opportunities for Blacks to enhance the quality of their children's life will also be helpful.

7. COMMUNITY DEVELOPMENT

The writer agrees with Schoeman (1985), that community development strategies ought to be implemented. These are: the promotion of community involvement and participation; encouraging self-help programs; acknowledging and protecting human dignity; and developing .pa services and organisations at local level. The community with its knowledge of the locality, can use existing resources more imaginatively and can provide invaluable advice when it is necessary to modify plans in response to changing conditions.

This study is an attempt to put the rather complicated dynamics of development and population in perspective. It is hoped that it will contribute to the formulation of effective population policies and that sufficient proof of the existence of significant relationships between socio-economic factors and demographic patterns has been presented. The overall conclusion to be drawn from these analyses is that a population policy should supplement further policy measures designed to improve general, social, and economic conditions in a country. It should not be implemented in isolation. In the long run, socio-economic development seems to be the answer to fertility decline.

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APPENDIX
PILOT STUDY QUESTIONNAIRES

FERTILITY STUDY - FEMALE QUESTIONNAIRE F1

Questionnaire Number -----
Location of Interview-----
Interviewer -----
Date -----

1. PERSONAL DETAILS

- 101 Name
- 102 Age in years -----
- 103 (a) Have you attended school? 1. Yes 2. No
(b) Highest year of schooling passed?-----
- 104 What post-school education did you have?
- | | | |
|-----------------|--------|-------|
| Teaching | 1. Yes | 2. No |
| Nursing | 1. Yes | 2. No |
| University | 1. Yes | 2. No |
| College | 1. Yes | 2. No |
| Technikon | 1. Yes | 2. No |
| Secretarial | 1. Yes | 2. No |
| Other (specify) | 1. Yes | 2. No |
-
- 105 Can you read a newspaper or magazine?
1. Yes
2. No skip to 107
- 106 In what languages?
1. Official 2. Vernacular 3. Both
- 107 In what type of area were you living at age 12?
1. Countryside outside homeland
2. Town in homeland
3. Town outside homeland
4. Countryside in homeland
5. City outside homeland
6. Homeland dense settlement

2. BIRTH AND CONTRACEPTIVE USE

- 201 Marital status:
- | |
|------------------|
| 1. Never married |
| 2. Married |
| 3. Separated |
| 4. Divorced |
| 5. Widower |
- 202 Are you living together with someone not your husband?
1. Yes 2. No

203 When did you last have a lover(including husband)?

1. Lover at present
2. Lover during past year but not at present
3. No lover at present or during past year
4. Casual partner

204 Have you ever used contraceptive?

1. Yes
2. No skip to 211

205 Are you or your partner currently using a method to keep you from getting pregnant?

1. Yes
2. No skip to 209

206 What methods are you using?

- | | | |
|----------------------------|--------|-------|
| Pill | 1. Yes | 2. No |
| Injection | 1. Yes | 2. No |
| Coitus Interruptus | 1. Yes | 2. No |
| Foam | 1. Yes | 2. No |
| IUD,including diaphram | 1. Yes | 2. No |
| Induced abortion | 1. Yes | 2. No |
| Husband Away/dead | 1. Yes | 2. No |
| Self medically sterilised | 1. Yes | 2. No |
| Lover medically sterilised | 1. Yes | 2. No |
| Other (specify) | 1. Yes | 2. No |

207 What problems do you have with your contraceptives?

- | | | |
|-------------------------|--------|-------|
| Distance from suppliers | 1. Yes | 2. No |
| Finance | 1. Yes | 2. No |
| Discomfort | 1. Yes | 2. No |
| Inconvenience | 1. Yes | 2. No |
| Other (specify) | 1. Yes | 2. No |

208 How often do you use your contraceptives?

1. Regularly
2. At that point in time when needed
3. Not regularly
4. Other (specify)-----

skip to 211

209 What was the last method you used?

1. None
2. Specify-----

210 Why are you not using any contraceptives now?

211 Is it physically possible for you to have a child?

1. Yes
2. No skip to 213
3. Don't know

- 212 If you have a current partner, is it physically possible for him to have a child?
1. Yes skip to 216
2. No skip to 215
3. Don't know skip to 215
- 213 Have you had an operation that makes it impossible for you to have any (more) children?
1. Yes
2. No skip to 215
- 214 Was one purpose of that operation to prevent you from having any (more) children?
1. Yes 2. No
- 215 Has your partner had an operation that makes it impossible for him to have children?
1. Yes 2. No 3. Don't know
- 216 How many stillbirths have you had?-----
How many miscarriages have you had?-----
How many live births have you had?-----
- PLEASE FILL IN QUESTIONNAIRE F2. FOR EACH LIVE BIRTH Nos-----to--
If one or more live births, skip to 219
- 217 Do you want to have any children?
1. Yes
2. No skip to 221
3. Undecided
- 218 What sex would you prefer your first child to be?
1. Boy
2. Girl
3. Either
4. Other answer-----
- 219 Are you pregnant now?
1. Yes 2. No 3. Don't know
- 220 If pregnant: Do you want to have another child in addition to the present pregnancy sometime?
If not pregnant: Do you want to have another child?
1. Yes
2. No skip to 222
3. Don't know
- 221 How many more children do you want to have?-----
- 222 If you could choose exactly the number of children to have in your whole life, how many would it be?-----
- 223 How many boys would you prefer?-----
- 224 How many girls would you prefer?-----

3. INCOME

301 Economic status

1. Employed (by someone else)
2. Self-employed
3. Not employed, but looking for work
4. Not employed and not looking for work

If choice is 4., choose reason below and skip to 308

1. Domestic duties
2. Temporarily sick
3. Permanently sick or disabled
4. Resting between jobs
5. Retired
6. At school or other educational institution
7. Discouraged
8. Other-----

302 Do you work full-time or part-time?

1. Full-time
2. Part-time

303 Do you have a second job, even in the informal sector?

1. Yes
2. No

304 In what sector are you employed?

1. Agriculture
2. Manufacturing
3. Trade
4. Government
5. Domestic Service
6. Other-----

305 What type of job do you have?

1. Unskilled
2. Semi-skilled
3. Skilled
4. Professional
5. Managerial
6. Other-----

306 How much do you earn from 1st formal job monthly?-----

307 How much do you earn from 2nd job monthly?-----

308 Do you belong to a savings club, stokvel, umgalelo?

1. Yes
2. No skip to 310

309 How much do you contribute each month?-----

310 Are you supported in any way by family or lover(s)?

1. Yes
2. No skip to end

311 Which of the following support you?
If more than one in any category, put number

father
mother
son
daughter
sister
brother
wife
in-laws
grandchildren
other relative-----
lover
other non-relative-----

312 Which kind of support do you receive?

Lodging	1.Yes	2.No
Food	1.Yes	2.No
Payment for education	1.Yes	2.No
Gifts, not food, for immediate use?	1.Yes	2.No
Durable gifts, other than food?	1.Yes	2.No
Money	1.Yes	2.No
Other(specify)	1.Yes	2.No

313 If you receive money, how does it come?

1. Direct payment 2. Remittances 3. Both

FERTILITY STUDY- FEMALE QUESTIONNAIRE F2 No-----

Main Questionnaire Number-----

Birth Number-----

F201 Name of child-----

F202 Age-----

F203 Sex 1. Boy 2. Girl

F204 Is the child still living?

1. Yes skip to F206

2. No

3. Don't know skip to F206

F205 How old was the child when it died?-----skip to F207

F206 Is the child still at home? 1. Yes 2. No

F207 Place of birth-----

F208 How did you space this child from the previous one?

Breast feeding 1. Yes 2. No

Pill 1. Yes 2. No

Injection 1. Yes 2. NO

Coitus Interruptus 1. Yes 2. No

Induced abortion 1. Yes 2. No

Husband away/dead 1. Yes 2. No

IUD 1. Yes 2. No

Foam 1. Yes 2. No

Other (specify)----- 1. Yes 2. No

no contraception 1. Yes 2. No

FERTILITY STUDY- MALE QUESTIONNAIRE M1

Questionnaire Number ----
Location of Interview-----
Interviewer-----
Date-----

1. PERSONAL DETAILS

101 Name

102 Age in years-----

103 (a) Have you attended school 1.Yes 2.NO
(b) Highest year of schooling passed?-----

104 What post-school education did you have?

Teaching	1. Yes	2. No
Nursing	1. Yes	2. No
University	1. Yes	2. No
College	1. Yes	2. No
Technikon	1. Yes	2. No
Secretarial	1. Yes	2. No
Other (specify)	1. Yes	2. No

105 Can you read a newspaper or magazine ?

1. Yes
2. No Skip to 107

106 In what languages ?

1. Official 2. Vernacular 3. Both

107 In what type of area were you living at age 12 ?

1. Countryside outside homeland
2. Town in homeland
3. Town outside homeland
4. Countryside in homeland
5. City outside homeland
6. Homeland dense settlement

2. REPRODUCTIVE HISTORY

201 Marital status: 1. Never married
 2. Married
 3. Separated
 4. Divorced
 5. Widower

202 How many current partners ?

PLEASE FILL IN A QUESTIONNAIRE M2 FOR EACH OF CURRENT PARTNERS
Questionnaire Numbers ----- to-----

203 Do you think contraceptives are good ?

1. Yes
2. No
3. Pros and cons
4. Don't know

204 Whose responsibility is it to be protected ?

1. Own responsibility
2. Partner's responsibility
3. Both of us
4. Don't know
5. Other

205 Who should use contraceptives in a relationship ?

1. Myself
2. Partner
3. Both
4. Don't know

Any other comments on the subject:

206 How many live births fathered?-----

If no live births, please continue with question 207 otherwise
PLEASE FILL IN A QUESTIONNAIRE M3 FOR EACH BABY FATHERED

Questionnaire Numbers ----- to -----
Please skip to question 210

207 Do you want to have any children?

1. Yes
 2. No
 3. Undecided
- Skip to question 213

208 What sex would you prefer your first child to be?

1. Boy
2. Girl
3. Either
4. Other answer-----

209 How many children in all do you want to have?-----
Please skip to 213

210 Do you want to have another child sometime?

1. Yes
 2. No
 3. Undecided
- Skip to 213
Skip to 213

211 What sex would you prefer your next child to be?

1. Boy
2. Girl
3. Either
4. Other answer -----

212 How many more children do you want to have?-----

213 If you could choose exactly the number of children to have in your whole life, how many children would that be?

214 How many boys would you prefer?-----

215 How many girls would you prefer?-----

3. INCOME

301 Economic Status

1. Employed (by someone else)
2. Self employed
3. Not employed, but looking for work
4. Not employed and not looking for work

If choice is fourth one
choose reason below and then skip to 308

1. Domestic duties
2. Temporarily sick
3. Permanently sick or disabled
4. Resting between jobs
5. Retired
6. At school or other educational institution
7. Discouraged
8. Other

302 Do you work full-time or part-time?

1. Full-time
2. Part- time

303 Do you have a 2nd job, even in the informal sector?

1. Yes
2. No

304 In what sector are you employed?

1. Agriculture
2. Manufacturing
3. Trade
4. Government
5. Domestic Services
6. Other

305 What type of job do have?

1. Unskilled
 2. Semi- skilled
 3. Skilled
 4. Professional
 5. Managerial
 6. Other
-

306 How much do you earn from your 1st formal job monthly?-----

307 How much do you earn from your 2nd job monthly?-----

308 Do you belong to a savings club, stokvel umgalelo?

1. Yes
 2. No
- Skip to 310

309 How much do you contribute each month?

310 Are you supported in any way by family or lover(s)?

1. Yes
 2. No
- Skip to end

311 Which of the following support you?

If more than one in any category, put number

- Father
Mother
Son
Daughter
Sister
Brother
Wife
In-laws
Grandchildren
Other relative-----
Lover
Other non- relative-----

312 Which kind of support do you receive?

- | | | |
|-------------------------------------|--------|-------|
| Lodging? | 1. Yes | 2. No |
| Food? | 1. Yes | 2. No |
| Payment for education? | 1. Yes | 2. No |
| Gifts, not food, for immediate use? | 1. Yes | 2. No |
| Durable gifts, other than food? | 1. Yes | 2. No |
| Money? | 1. Yes | 2. No |
| Other (specify) | 1. Yes | 2. No |
-

313 If you receive money, how does it come?

1. Direct payment
2. Remittances
3. Both

FERTILITY STUDY- MALE QUESTIONNAIRE M2 No.-----

Main Questionnaire Number-----

Partner Number-----

M201 Name of partner

M202 Your relationship with her

1. Casual partner
2. Married
3. Living Together
4. Regular partner

M203 Her marital status

1. Married to someone else
2. Divorced
3. Separated
4. Widowed
5. Never married
6. Wife

M204 How often do you see her?

1. Almost daily
2. At least twice a month
3. Less than twice a month
4. Once a year or less

M205 Do you think she is fertile?

1. Yes skip to M207
2. No
3. Don't know skip to M207

M206 Why is she not fertile?

1. Medically sterile
2. Naturally sterile
3. Too old
4. Too young
5. Other-----

M207 Is she pregnant now?

1. Yes
- 2.No
3. Don't know

M208 What methods do you both use for contraception?

- | | | |
|--------------------------|-------|------|
| Pills | 1.Yes | 2.No |
| Injection | 1.Yes | 2.No |
| IUD, including diaphragm | 1.Yes | 2.No |
| Coitus interruptus | 1.Yes | 2.No |
| Foam | 1.Yes | 2.NO |
| Induced abortion | 1.YES | 2.NO |
| Sheath | 1.Yes | 2.No |
| Other----- | 1.Yes | 2.No |

M209 Do the two of you use contraception regularly?

1. Yes
2. No
3. Don't know

M210 What problems do you (both) find in contraception?

- | | | |
|---------------------------|--------|-------|
| 1. Distance from supplier | 1. Yes | 2. No |
| 2. Finance | 1. Yes | 2. No |
| 3. Discomfort | 1. Yes | 2. No |
| 4. Inconvenience | 1. Yes | 2. No |
| 5. Other----- | 1. Yes | 2. No |

FERTILITY STUDY- MALE QUESTIONNAIRE M3

No-----

Main Questionnaire Number-----

Child Number-----

M301 Name of child-----

M302 Age in years-----

M303 Marital status of mother

1. Married
2. Never married
3. Separated
4. Divorced
5. Widowed

M304 Sex of child 1. Male 2. Female

M305 Is the child still alive?

1. Yes
2. No Skip to M307
3. Don't know

M306 Who does the child live with?

1. Mother
 2. Relatives
 3. My parents
 4. Other (specify) -----
 5. Don't know
- Skip to M308

M307 How old was the child when it died? -----

M308 Do you support the child? 1. Yes 2. No

M309 Place of birth -----

M310 Did you want this child to be born?

1. Yes 2. No 3. Don't know

M311 Do you still regard the child as your child?

1. Yes 2. No 3. Don't know

MAIN SURVEY QUESTIONNAIRES

FERTILITY STUDY- FEMALE QUESTIONNAIRE F1

Questionnaire Number -----
Location of Interview -----
Date----/----/----

1. PERSONAL DETAILS

- 101 Name -----
- 102 Age in years -----
- 103 (a) Have you attended school? 1. Yes 2. No
(b) Highest year of schooling passed?
- 104 Do you have any post-school education?
1. Yes 2. No
- 105 Can you read a newspaper or magazine?
1. Yes
2. No Skip to 107
- 106 In what language?
1. Official 2. Vernacular 3. Both
- 107 In what type of area were you living at age 12?
1. City outside homeland
2. Town outside homeland
3. Countryside outside homeland
4. Town in homeland dense settlement
5. Countryside in homeland

2. BIRTH AND CONTRACEPTIVE USE

- 201 Marital status: 1. Never married
2. Married
3. Separated
4. Divorced
5. Widower
- 202 Are you living together with someone not your husband?
1. Yes 2. No
- 203 When did you last have a lover (including husband)?
1. Lover at present
2. Lover during past year but not at present
3. No lover at present or during last year
4. Casual partner

204 Have you ever used contraceptives?

1. Yes
2. No skip to 211

205 Are you or your partner currently using a method to keep you from getting pregnant?

1. Yes
2. No skip to 209

206 What methods are you using?

- | | | |
|----------------------------|--------|-------|
| Pill | 1. Yes | 2. No |
| Injection | 1. Yes | 2. No |
| Coitus Interruptus | 1. Yes | 2. No |
| Foam | 1. Yes | 2. No |
| IUD, including diaphragm | 1. Yes | 2. No |
| Induced abortion | 1. Yes | 2. No |
| Husband away/dead | 1. Yes | 2. No |
| Self medically sterilised | 1. Yes | 2. No |
| Lover medically sterilised | 1. Yes | 2. No |
| Other(specify) ----- | 1. Yes | 2. No |

207 What problems do you have with your contraceptives?

- | | | |
|------------------------|--------|-------|
| Distance from supplier | 1. Yes | 2. No |
| Finance | 1. Yes | 2. No |
| Discomfort | 1. Yes | 2. No |
| Inconvenience | 1. Yes | 2. No |
| Other(specify)----- | 1. Yes | 2. No |

208 How often do you use your contraceptives?

1. Regularly
2. At that point in time when needed
3. Not regularly
4. Other(specify)-----

209 What was the last method you used?

1. None
2. Specify-----

210 Why are you not using any contraception now?

1. Unpleasant side effects
2. Not yet sexually active
3. Not currently sexually active
4. Wishes to become pregnant
5. Infertility
6. Other(specify)-----

211 Is it physically possible for you to have a child?

1. Yes
2. No skip to 213
3. Don't know

212 If you have a current partner, is it physically possible for him to have a child?

1. Yes skip to 216
2. No skip to 215
3. Don't know skip to 215

- 213 Have you had an operation that makes it impossible for you to have any(more) children?
 1. Yes
 2. No skip to 215
- 214 Was one purpose of that operation to prevent you from having any(more) children?
 1. Yes 2. No
- 215 Has your partner had an operation that makes it impossible for him to have children?
 1. Yes 2. No 3. Don't know
- 216 How many stillbirths have you had? -----
 How many miscarriages have you had? -----
 How many live births have you had? -----
 PLEASE FILL IN QUESTIONNAIRE F2 FOR EACH LIVE BIRTH
 If one or more live births, skip to 219 Nos---- to ----
- 217 Do you want to have any children?
 1. Yes
 2. No Skip to question 221
 3. Undecided
- 218 What sex would you prefer your first child to be?
 1. Boy
 2. Girl
 3. Either
 4. Other answer -----
- 219 Are you pregnant now?
 1. Yes 2. No 3. Don't know
- 220 If pregnant: Do you want to have another child in addition to present pregnancy sometime?
 If not pregnant: Do you want to have another child?
 1. Yes
 2. No Skip to 222
 3. Don't know
- 221 How many more children do you want to have? -----
- 222 If you could choose exactly the number of children to have in your whole life, how many would it be? -----
- 223 How many boys would you prefer?----
- 224 How many girls would you prefer?----
- 225 Did you ever conceive a child despite using contraceptives at that time?
 1. Yes 2. No
- 226 How many times?

3. INCOME

301 Economic status

1. Employed (by someone else)
2. Self-employed
3. Not employed, but looking for work
4. Not employed and not looking for work

If choice is 4 choose reason below and skip to 308

1. Domestic duties
2. Temporarily sick
3. Permanently sick or disabled
4. Resting between jobs
5. Retired
6. At school or other educational institution
7. Discouraged
8. Other -----

302 Do you work full- time or part-time?

1. Full-time
2. Part-time

303 Do you have a 2nd job, even in the informal sector?

1. Yes
2. No

304 In which occupation are you ?

1. Agriculture
2. Supervisor/ commerce
3. Trade
4. Public Administration (Government)
5. Domestic service
6. Other -----

305 What type of job do you have?

1. Unskilled
2. Semi-skilled
3. Skilled
4. Professional
5. Managerial
6. Other -----

306 How much do you earn from your 1st formal job monthly?

307 How much do you earn from your 2nd job monthly?

308 Do you belong to a savings club, stokvel, umgalelo?

1. Yes
2. No Skip to 310

309 How do you contribute each month?

310 Are you supported in any way by family or lover(s)?

1. Yes

2. No

Skip to end

311 Which of the following support you?

If more than one in any category, put number

1. Father

2. Mother

3. Son

4. Daughter

5. Sister

6. Brother

7. Husband

8. In-laws

9. Grandchildren

10. Other relative -----

11. Lover

12. Other non-relative -----

312 Which kind of support do you receive?

Lodging

1. Yes 2. No

Food

1. Yes 2. No

Payment for education

1. Yes 2. No

Gifts, not food, for immediate use

1. Yes 2. No

Durable gifts, other than food

1. Yes 2. No

Money

1. Yes 2. No

Other (specify) -----

1. Yes 2. No

313 If you receive money, how does it come?

1. Direct payment

2. Remittances

3. Both

FERTILITY STUDY- FEMALE QUESTIONNAIRE F2 No-----

Main Questionnaire Number -----

Birth Number -----

F201 Name of child -----

F202 Age -----

F203 Sex 1. Boy 2. Girl

F204 Is the child still living?

1. Yes Skip to F206

2. No

3. Don't know Skip to F206

F205 How old was the child when it died ----- Skip to 207

F206 Is the child still at home? 1. Yes 2. No

F207 Place of birth -----

F208 What method were you using before you conceived this child?

1. Breast feeding 1. Yes 2. No

2. Pill 1. Yes 2. No

3. Injection 1. Yes 2. No

4. Coitus Interruptus 1. Yes 2. No

5. Induced abortion 1. Yes 2. No

6. Husband away/dead 1. Yes 2. No

7. IUD 1. Yes 2. No

8. Foam 1. Yes 2. No

9. Other (specify) 1. Yes 2. No

10. No contraception 1. Yes 2. No

F209 Who does the child live with?

1. Myself

2. Relatives

3. Father's parents

4. My parents

5. Other (specify) -----

6. Don't know

FERTILITY STUDY - MALE Questionnaire M1

Questionnaire Number ----

Location of interview-----

Interviewer -----

Date --/--/--

1. PERSONAL DETAILS

101 Name -----

102 Age in years -----

103 (a) Have you attended school? 1. Yes 2. No

(b) Highest year of schooling passed? -----

104 Do you have any post-school education?

1. Yes 2. No

105 Can you read a newspaper or magazine

1. Yes

2. No skip to 107

106 In what language?

1. Official

2. Vernacular

3. Both

107 In what type of area were you living at age 12?

1. City outside homeland

2. Town outside homeland

3. Countryside outside homeland

4. Town in homeland dense settlement

5. Countryside in homeland

2 REPRODUCTIVE HISTORY

201 Marital status: 1. Never married

2. Married

3. Separated

4. Divorced

5. Widower

201 How many current partners?

PLEASE FILL IN A QUESTIONNAIRE M2 FOR EACH OF CURRENT PARTNERS

Questionnaire Numbers ---to ---

203 Do you think contraceptives are good?

1. Yes

2. No

3. Pros and cons

4. Don't know

204 Whose responsibility is it to be protected?

1. Myself
2. Partner
3. Both of us
4. Don't know
5. Other -----

205 Who should use contraceptives in a relationship?

1. Myself
2. Partner
3. Both
4. Don't know

Any other comments on subject:

206 How many live births fathered?-----

If no live births, please continue with question 207 otherwise

PLEASE FILL IN A QUESTIONNAIRE M3 FOR EACH BABY FATHERED

Questionnaire numbers -----to -----

Please skip to question 210

207 Do you want to have any children?

1. Yes
2. No Skip to 213
3. Undecided

208 What sex would you prefer your child to be?

1. Boy
2. Girl
3. Either
4. Other answer -----

209 How many children in all do you want to have?

Please skip to 213

210 Do you want to have another child sometime?

1. Yes
2. No Skip to 213
3. Undecided Skip to 213

211 What sex would you prefer your next child to be?

1. Boy
2. Girl
3. Either
4. Other answer -----

212 How many more children do you want to have?

213 If you could choose exactly the number of children to have in your whole life, how many children would that be? -----

214 How many boys would you prefer -----

215 How many girls would you prefer? -----

3. INCOME

301 Economic Status

1. Employed (by someone else)
2. Self-employed
3. Not employed, but looking for work
4. Not employed and not looking for work

If choice is fourth one
choose reason below and skip to 308

1. Domestic duties
2. Temporarily sick
3. Permanently sick or disabled
4. Resting between jobs
5. Retired
6. At school or other educational institution
7. Discouraged
8. Other -----

302 Do you work full-time or part-time?

1. Full-time
2. Part-time

303 Do you have a 2nd job, even in the informal sector?

1. Yes
2. No

304 In what sector are you employed?

1. Agriculture
2. Supervisory/Commerce
3. Trade
4. Public Administration (Government)
5. Domestic Service
6. Other -----

305 What type of job do you have?

1. Unskilled
2. Semi-skilled
3. Skilled
4. Professional
5. Managerial
6. Other -----

306 How much do you earn from your 1st formal job monthly?

307 How much do you earn from your 2nd job monthly?

308 Do you belong to a savings club, stokvel, umgalelo?

1. Yes
2. No Skip to 310

309 How much do you contribute each month?

310 Are you supported in any way by family or lover(s)?

1. Yes
2. No Skip to end

311 Which of the following support you?

If more than one in any category, put number

1. Father
2. Mother
3. Son
4. Daughter
5. Sister
6. Brother
7. Wife
8. In-laws
9. Grandchildren
10. Other relative -----
11. Lover
12. Other non-relative -----

312 Which kind of support do you receive?

- | | | |
|-------------------------------------|--------|-------|
| Lodging? | 1. Yes | 2. No |
| Food? | 1. Yes | 2. No |
| Payment for education? | 1. Yes | 2. No |
| Gifts, not food, for immediate use? | 1. Yes | 2. No |
| Durable gifts, other than food? | 1. Yes | 2. No |
| Money? | 1. Yes | 2. No |
| Other (specify) ----- | 1. Yes | 2. No |

313 If you receive money, how does it come?

1. Direct payment
2. Remittances
3. Both

FERTILITY STUDY- Male Questionnaire M2 No-----

Main Questionnaire Number -----

Partner Number -----

M201 Name of Partner -----

M202 Your relationship with her

1. Casual partner
2. Married
3. Living together
4. Regular partner

M203 Her marital status

1. Married to someone else
2. Divorced
3. Separated
4. Widowed
5. Never married
6. Wife

M204 How often do you see her?

1. Almost daily
2. At least twice a month
3. Less than twice a month
4. Once a year or less

M205 Do you think she is fertile?

1. Yes Skip to M207
2. No
3. Don't know Skip to M207

M206 Why is she not fertile?

1. Medically sterile
2. Naturally sterile
3. Too old
4. Too young
5. Other -----

M207 Is she pregnant now?

1. Yes 2. No 3. Don't know

M208 What methods do you use for contraception?

- | | | |
|--------------------------|--------|-------|
| Pills | 1. Yes | 2. No |
| Injection | 1. Yes | 2. No |
| IUD, Including diaphragm | 1. Yes | 2. No |
| Coitus interruptus | 1. Yes | 2. No |
| Foam | 1. Yes | 2. No |
| Induced abortion | 1. Yes | 2. No |
| Sheath | 1. Yes | 2. No |
| Don't know | 1. Yes | 2. No |
| Other ----- | 1. Yes | 2. No |

M209 Do the two of you use contraception?

- | | | |
|--------|-------|---------------|
| 1. Yes | 2. No | 3. Don't know |
|--------|-------|---------------|

M210 What problems do you (both) find in contraception?

- | | | |
|---------------------------|--------|-------|
| 1. Distance from supplier | 1. Yes | 2. No |
| 2. Finance | 1. Yes | 2. No |
| 3. Discomfort | 1. Yes | 2. No |
| 4. Inconvenience | 1. Yes | 2. No |
| 5. Don't know | 1. Yes | 2. No |
| 6. Other ----- | 1. Yes | 2. No |

FERTILITY STUDY -MALE Questionnaire M3 No-----

Main Questionnaire Number -----

Child Number -----

M301 Name of child -----

M303 Marital status of mother

1. Wife of respondent
2. Married to someone else
3. Never married
4. Separated
5. Divorced
6. Widowed

M304 Sex of child 1. Male 2. Female

M305 Is the child still alive?

1. Yes
2. No Skip to M307
3. Don't know

M306 Who does the child live with?

1. Mother
 2. Relatives
 3. My parents
 4. Mother's parents
 5. Other (specify) -----
 6. Don't know
- Skip to M308

M307 How old was the child when it died?-----

M308 Do you support the child 1. Yes 2. No

M309 Place of birth -----

M310 Did you want this child to be born?

1. Yes 2. No 3. Don't know

M311 Do you still regard the child as your child?

1. Yes 2. No 3. Don't know